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Move Started To Ease Farm Debt Situation

Federal Agencies and East-
ern Concerns in Pre-
liminary Discussion

HOOVER MAPS AIMS
Banking and Industrial Ex-
perts Hold Confer-
ence in Chicago

Washington — (P) — President Hoover today notified Governor Turner of Iowa that he had secured a preliminary discussion among eastern concerns and federal agencies on farm mortgages, and that banking and industrial committees in the midwest would launch an effort to alleviate the situation.

The president's telegram to Turner said that Henry Robinson, chairman of the executive committee of the banking and industrial committees set up in each federal reserve district, has called members of those committees in the midwest to meet in Chicago today to consider farm mortgages.

Hoover to Be Present
Secretary Hyde, representatives of the Reconstruction corporation, and of the Federal Farm Loan banks will participate at tomorrow's meeting.

Mr. Hoover's message, sent yesterday, follows:

"You will be glad to know that I have secured a preliminary discussion among eastern mortgage concerns and governmental agencies upon the question of farm mortgages.

"As a result, Mr. Henry Robinson, chairman of the executive committee of the Federal Reserve Banking and Industrial committees, has arranged for a further meeting of members of those committees for the midwest districts together with representatives of mortgage agencies at the Federal Reserve bank in Chicago tomorrow. It is to be allowed by more extended meetings on Friday."

"In order that we may have full coordination of governmental agencies, the secretary of agriculture and representatives of the Recon-
struction corporation and the Federal Farm Loan banks will partici-
pate in these meetings with other mortgage agencies. I am very hopeful that constructive steps will follow from these conferences."

MEET IN CHICAGO

Chicago — (P) — A score of the country's financial leaders met today in the Federal Reserve bank at the call of President Hoover to seek some means of helping the farmer burdened with mortgages and facing low commodity prices.

Today's session, said Henry M. Robinson of Los Angeles, chairman, will "do the spade work" and tomorrow the conference expect to come to some decision with respect to further moratorium on the farmers' mortgages.

Robinson is chairman of the executive committee of the federal reserve banking and industrial committees named for each reserve district. Today's meeting brought together most of the chairmen and vice chairmen of these committees in the areas around Chicago, together with representatives of mortgage agencies in Chicago and other federal reserve officials. Tomorrow more district chairmen and the state vice-chairmen will be present.

Robinson said he had no idea what would develop from the meeting, but he hoped some concrete plan would be evolved which would take pressure off the farmer and at the same time not work any hardship on the holders of mortgages who are often, he pointed out, borrowers themselves.

Cagney Returns to Work With Increased Salary

Hollywood — (P) — Hollywood's longest holdout on record, James Cagney, was to return to work today, reportedly at an increased salary, a victory in his salary dispute with Warner Brothers-First National studios.

Cagney walked out on the studios last April claiming his acting was worth \$4,000 weekly instead of \$1,400. Although the terms of his new contract with the studios were not revealed, those close to the studio said Cagney will receive a "substantial" increase over his former salary.

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Accused Slayer Faces Court for Murder Trial

Durand, Wis. — (P) — Michael J. Wachter, accused of slaying his housekeeper, Mrs. Jennie Grant, 40, was held in the county jail here today awaiting trial on a charge of first degree murder.

Wachter was bound over to circuit court after a preliminary hearing yesterday in which testimony was heard from Albert Black, now serving a sentence of 14 to 25 years in state prison in connection with the slaying.

Black, who was returned here from Waupun for the hearing, accused Wachter of attacking and fatally beating Mrs. Grant at his farm last Jan. 17. Black said he had not told what happened that day because he feared Wachter would harm him.



Seeks Divorce

Bank Robbers Escape Posse In Michigan

Seven Bandits Wound 2
Men During Holland Hold-
up — Seize Over \$10,000

IN RUNNING BATTLE Gang Uses Machine Guns To Hold off Pursuers— Gunman Reported Shot

Siren, Wis. — (P) — A shabby gunman lined up three employees of the First Bank of Grantsburg, Siren, today and escaped with \$500. Apparently an amateur, he made no attempt to get money from the vault. Siren is in Burnett co.

Holland, Mich. — (P) — Seven bank robbers armed with sub-machine guns twice eluded a posse of 100 men near here this morning and were reported in full flight through western Michigan after looting the First State bank here of between \$10,000 and \$12,000 and wounding two men.

The bandits were halted temporarily near Drentie by the pursuing posse, but broke away after opening fire with the machine guns. State police and armed citizens then pursued them to a swamp near Jamestown, west of here, but again they eluded them and sped west, closely pursued.

Nearly 100 shots were fired by the fugitives in their two encounters with the posse.

Near Drentie the robbers held up George Boerman, a farmer, took his truck and turned it crosswise in the highway, and opened fire on the posse.

Members of the posse took refuge behind a farmhouse and kept up a running fire, but the bandits dashed to their automobile and sped away, he said.

Boerman, who was injured, said one of the men had been wounded and was bleeding freely.

The bandits wounded Peter Lievense, chief of police, and Peter DeYoung, a bystander, during the bank robbery.

Ten employees and customers in the bank were forced to be on the floor while the bandits seized all the available cash.

Explains Federal Relief Measures

Intended to Supplement Financial Institutions, Ballantine Says

Washington — (P) — Emergency relief steps of the government were described today by Arthur A. Ballantine, under-secretary of the treasury, as "designed to supplement our financial institutions, not to constrain or supplant them."

Addressing the annual convention of the Morris Plan Bankers association, Ballantine added that the relief measures involving public credit put the government into business "in a limited sense," but that "no agency other than the federal government could render the powerful help needed in this time."

Ballantine reviewed the various measures enacted to aid economic recovery, including the Reconstruction corporation, the tax bill and the Glass-Steagall act. He continued:

"The success of that effort is being reflected today in increased bank reserves, larger bank deposits, the return of gold and currency, increased prices of commodities and securities, and, beginning in certain lines, an upturn of employment and business activity."

As for economy in federal expenditures, he said "the fight is by no means over, for while we are encouraged by the substantial gains made, we are far short of the ultimate objective." He termed the fight against cash payment of the soldiers' bonus "vital" to sound finance.

For the future, Ballantine said:

"The aim of the credit utilization plan has been to preserve and reinvigorate our financial and industrial structure, to restore it to the strength by which it has in the past sustained our people in the highest standard of living that the world has ever known."

Police advanced the theory that Badger had become involved in the plot of the mail robbers; but two others, Thomas Holden and Francis Keating, were convicted and sentenced to 25 years in Leavenworth, where they were said to have used a garage owned by Badger on Chicago's south side as a hideout.

The license on the car in which the body was found had been issued to Richard Badger, said to be a brother.

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Badger was accused of slaying his wife, a victim in his salary dispute with Warner Brothers-First National studios.

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It is essential that these protective activities of the government should continue to be administered in accordance with that vision.

They should not be used as an opening wedge for regimenting, under government discipline, the economic life of the country."

Consider Merger of Two Paper Companies

Mosinee, Wis. — (P) — Directors of the Mosinee Paper Mills company and the Tomahawk Kraft Paper company are negotiating for a merger of the companies according to letters sent to bondholders.

The companies according to letters signed by the presidents, will not pay bond interest due Oct. 1.

"The companies have been able

to run continuously, but have not been able to make a profit which would produce funds available for the payment of debt service," bondholders were told. It was stated that a merger would reduce operating costs appreciably and that it is reasonably certain the companies can work themselves out of present difficulties. The companies have assets of about \$8,000,000.

Recovering



Vandebogart Is Removed From Police Force

Veteran Policeman Pleads
Guilty of Unbecom-
ing Conduct

ASKS FOR LENIENCY

Police, Fire Commission
Suspends Thomack
For 30 Days

Officer Earl Vandebogart was discharged from the Appleton police department by the police and fire commission last night when he pleaded guilty of conduct unbecoming an officer and accepting gifts. The commission, which met at city hall, also found him guilty of larceny.

Officer Adna Thomack, who has been suspended without pay for 30 days after he pleaded guilty of conduct unbecoming an officer and failure to report an infraction to a superior officer.

When the meeting started it appeared as though it would be shot, but after retiring to the committee rooms to hear Vandebogart's plea for leniency, the commission decided to return to the council chambers to hear evidence on the charge of larceny, which he denied. The bearing of evidence lasted until shortly after 11 o'clock, and the commission then spent more than half an hour in secret session determining the punishment of the two officers.

In the plea for leniency, Alfred Bradford, Vandebogart's attorney, pointed out that the officer admitted he had done wrong. He said, however, that the alcohol had not been stolen, because Vandebogart had been given permission by the drivers of the car to take some for himself. The officer had shown considerable reform since he had demoted two years ago from a desk

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League of Nations Up Against Fund Shortage

Geneva — (P) — France refuses to share the pessimism and skepticism which is now being directed at the League of Nations, Premier Edouard Herriot of France told the league assembly today.

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Geneva — (P) — Prospects of financial straits for the League of Nations hung over the council today following a report which showed only 6 per cent of the contributions from member nations had been received up to Sept. 19.

"If it should be impossible for the secretary-general and the assembly to induce states that have not paid to send their contributions this year," Carl Hambré, member of the supervisory commission said, "the League will be in a very difficult position at the end of the year."

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Clubwoman Speeding
Case in Highest Court

Milwaukee — (P) — Final settlement of the case of Mrs. Clem W. Seely, the Milwaukee clubwoman who preferred a jail cell to paying a fine for speeding because she said she had been "railroaded" will be made by the supreme court. Notice of appeal was filed with the city yesterday by Mrs. Seely's counsel. Mrs. Seely was found guilty of speeding by a jury after she had contested a fine of \$25 fixed by Judge George E. Page. She spent several days in the house of correction rather than pay the fine.

Judge W. F. Robertson shortly before a trial, and the judge granted a temporary injunction restraining Mrs. Ferguson, her husband, James E. Ferguson, the Democratic state executive committee, State Chairman Mauri Hughes, Mrs. Jane Y. McCallum, secretary of state, or other state officials from using Mrs. Ferguson's name to be placed on the ballot.

The petition was presented to Judge Robertson at his home by General M. M. Crane of Dallas, C. S. Bladie of Gresham and Sam McCorkle of Mexico.

Judge Robertson asked them if the attorneys for Mrs. Ferguson were in town and if they had been retained, as much as they had asked for an opportunity to be heard should an injunction petition be presented.

"We object to giving them any advance notice whatever," Bradley said.

The attorneys for the governor in their petition conceded that since Governor Stirling filed a complaint against Mrs. Ferguson, her husband, James E. Ferguson, the Democratic state executive committee, State Chairman Mauri Hughes, Mrs. Jane Y. McCallum, secretary of state, or other state officials from using Mrs. Ferguson's name to be placed on the ballot.

"All of the 35 officers and men of the Nevada served on at least one jury in the state, and gave that city a good name," he said.

On Sept. 19, T. W. Johnson took the lead in the campaign to elect Mrs. Ferguson, her husband, James E. Ferguson, the Democratic state executive committee, State Chairman Mauri Hughes, Mrs. Jane Y. McCallum, secretary of state, or other state officials from using Mrs. Ferguson's name to be placed on the ballot.

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Premier Firm Despite Rift In His Cabinet

MacDonald Starts to Re- construct Government. On National Lines

London — (P) — Prime Minister Ramsay MacDonald, who was denounced by his Labor party colleagues when he formed his national cabinet to face the British financial crisis last October, stood firm today despite the resignation of his colleague of 40 years, Philip Snowden, and several Liberal cabinet members.

He began immediately to reconstruct the cabinet on national lines. Sir John Gilmour, Conservative, was moved from the post of minister of agriculture to the home secretaryship, vacated by Sir Herbert Samuel, leader of the Liberals who refused to accept the tariff proposals contained in the trade agreements reached at the recent Ottawa trade conference.

Major Walter Elliot, Conservative, was named minister of agriculture and Sir Godfrey Collins, Liberal, was given the post of secretary for Scotland vacated by Sir Archibald Sinclair, Liberal.

In the meantime, the resignations seemed to have widened the rift in the Liberal party which began over the formation of the national cabinet last fall.

"We are not quitters," Walter Ruttmann, Liberal and president of the board of trade, told a meeting of National Liberal members of the house of commons which congratulated him and Sir John Simon, foreign secretary, for declining to follow the other Liberals out of the cabinet. Thirty of the 35 so-called "Simon Liberals" in the house attended the meeting. A resolution was passed declaring they would continue to support the MacDonald government.

Sidetrack Rumors
Their actions set at rest rumors that the Liberals would unite action on the free trade issue and oppose the government.

The successor of Lord Snowden as lord privy seal was not named immediately.

George Lansbury, leader of the Labor party, which Snowden left to follow MacDonald into the national cabinet last fall, indicated Snowden would not be welcomed again into the Labor fold, although he was one of the organizers of the party.

"This has been a Tory government from the beginning," Lansbury said, "and the man responsible for its existence, if there is one man more responsible than another, is Philip Snowden. It is very late in the day for him to denounce its Tory policy. It is characteristic that his political friendship should so soon turn to political hatred."

Prime Minister MacDonald said his government's task would not be finished until the problems of World war debts, reparations and the coming world economic conference were settled.

A joint letter of the Liberal ministers who resigned declared they regarded the Ottawa agreements as "a danger to the best interests of the empire, a derogation from the powers of parliament, a barrier to removing restrictions on the world's trade; a burden upon the British people and a probable cause of increased unemployment and social unrest."

Farm Moratorium May be Extended

Certain Wheat Growing Areas May Get Advan- tage of Plan

Washington — (P) — At the White House today it was said that if the distress in other farm sections proved comparable to that in certain wheat growing regions, the partial moratorium on repayment of crop production loans to grain farmers announced yesterday might be extended.

The White House announced yesterday that because "present low prices make it practically impossible for wheat farmers to repay their crop production loans, wheat farmers would be allowed to pay 25 per cent of the amount due, signing at the same time an agreement to secure the remaining 75 per cent."

Senator Smith (D., S.C.) today lodged an objection to this program, saying it discriminated against producers of other agricultural commodities and mentioning cotton and tobacco growers.

Walter H. Newton, one of the president's secretaries, told newspapermen the action was taken particularly in regard to wheat farmers because of the distress known to exist particularly in the Dakotas and eastern Montana, where, he said, crops had been blighted for at least one or two seasons past.

In response to questions, Newton said that if it was shown that producers of such products as cotton and tobacco had suffered to such an extent as some of the wheat farmers, he had no doubt the partial moratorium would be extended to them.

**Patrol Leaders are
Named by Girl Scouts**

Jane Frank, Betty Lehr, and Ruth Orbison were elected patrol leaders of the Pine Tree troop, Girl Scouts of All Saints' Episcopal church, at a meeting Wednesday night at the church. Reorganization of the troop took place. Meetings will be held every Tuesday afternoon at the church.

Wild Rose troop, which formerly met at the Woman's club, will meet at 4 o'clock every Friday afternoon at Appleton high school gymnasium. Miss Evelyn Stallman will be the captain.

Sheephead Tournament Ev-

Rush for Permits As Hunting Season

Opening Approaches
With the opening of the hunting season only two days away, clerks at the office of John E. Hantschel, county clerk, are being kept busy issuing hunting licenses to Outagamie County sportsmen. As Mr. Hantschel had previously predicted, there now is a prospect a last-minute rush on the part of sportsmen to secure their licenses before the opening of the season. Many hunters will take advantage of the first day of the season on ducks, coots, geese and wild geese, while others will spend several days hunting partridge, prairie chicken, quail and other game birds in the counties where the ban has been lifted.

Michigan G.O.P. Is Told Stability Depends on Party

**Failure at Polls "Would
Set Back Clock of
Progress," Claim**

Detroit — (P) — Lauding the administration of President Hoover and Governor Wilbur M. Brucker, Congressman Joseph L. Hooper of Battle Creek, as temporary chairman, told the Republican state convention here today that the party's success at the polls "is again essential to stability in government."

"Its failure will set back the clock of progress for many a long day to come," he said.

Rep. Hooper referred to the Reconstruction Finance corporation as the greatest relief measure the times have witnessed," criticized the Democratic party as "without a program" and charged that "their hope of victory rests in the will to centralized the misery which has resulted from the operation of powerful influences all over the globe."

Of the Democratic presidential nominee, the speaker said:

"The country has been looking to Mr. Roosevelt for constructive plans for the cure of the depression, for the handling of unemployment. To date, he has offered us the planting of a billion trees, a work which could be performed by a few men in a short time."

"The cost of government in New York state is said to have mounted one hundred and fifty million dollars during the term of Mr. Roosevelt's governorship. Why does he not apply to his own state some of the remedies and policies which he is urging upon the nation?"

"Where does he stand on the question of national economy? What is his position upon the immediate cash payment of the bonus?"

Praise Waterway

Rep. Hooper praised the St. Lawrence waterway project and expressed it as his opinion that the Republican pronouncement on prohibition "is the better one, with better prospects of taking this question out of the realm of politics where it does not belong."

The temporary chairman reviewed at length the beginning of the economic depression and the steps taken by the Republican national administration to cope with it.

President Hoover, he said, "has worked night and day for three of the blackest years in our history. He has thrust aside popularity to work for the people. With unshaken courage he has faced malicious propaganda and partisan slander. Americans should be his strong partisans, not his detractors."

Of Governor Brucker, the temporary chairman said: "He entered upon his duties as governor with an appalling task confronting him. With unfaltering courage he, too, has confronted the day's work and has done it well. He has proposed and accomplished great economies. He has battled valiantly against the criminal and the racketeer. He has kept his head no matter how fiercely the battle has raged around. He has just been given a tremendous vote of confidence by his party. Another and greater vote of confidence awaits him in November."

Concerning the St. Lawrence waterway project, he said:

"When Detroit, Bay City and Muskegon are seaports; when inland Michigan is the hinterland of prosperous and growing ocean commerce; when the freshwater Soo doubles its vast tonnage, the treaty negotiated by President Hoover will assure its real importance in the eyes of the commerce, agriculture and industry of Michigan."

The Republican national platform, Rep. Hooper said, "recognizes the fact that, whatever evils have resulted from prohibition, some good has been accomplished and that the good should not be wholly discarded with the bad."

**Thief Gets \$13 in
Cash From Library**

Cash totaling \$13 was taken by a burglar from the Appleton Public Library last night or early this morning. The marauder either secured himself in the library before it was closed for the night or gained entrance through a window.

The money was placed in a small closet off the interior of a vault where records are kept. The vault was not locked and the thief knocked the handle off the door of the closet to gain entrance to it. Police are investigating.

**Milwaukeean Head of
Roosevelt Motor Club**

New York — (P) — Thomas Numos of Milwaukee, was appointed president of the Wisconsin division of the Roosevelt Motor club of America, it was announced at national headquarters here today.

The club is an auxiliary campaign unit to the Democratic National Campaign committee and has for its purpose the enlistment of members as active supporters of Roosevelt for president. A bronze motor medallion is given to each member.

Sheephead Tournament Ev-

ery Fri. Nite at 8 O'clock. Rohloff, 702 E. Wis. Ave.

VOTERS DRAW—SO THEY DRAW



A slip of paper picked from a hat made Henry S. Barbour, left, the Republican candidate for Congress from California's Ninth district. Barbour and Glenn M. Devore, right, had tied with 10,428 votes each. Frank C. Jordan, secretary of state, center, settled the problem according to state law by drawing the winner's name out of the hat.

Today and Tomorrow

Mr. Lippmann, formerly editor of the New York World, is one of the foremost liberal thinkers in the country. He has complete freedom of expression in the articles appearing under his signature.

BY WALTER LIPPMAN

PROGRAM OF RECOVERY: IN THE EMERGENCY AND IN THE LONG RUN

In discussing a program of recovery it is useful to distinguish between recovery from financial panic and recovery from economic depression. Panic, to be sure, is the result of depression and greatly aggravated it, but the subduing of panic does not in itself bring a depression to an end, it merely makes possible such recovery from depression as the progress of underlying economic readjustments may warrant.

This is illustrated clearly enough in the case of England, which was swept by panic some months before we were and recovered from the panic some months ahead of us. But England has remained in a state of depression because there have remained unchanged at home and abroad profoundly necessary economic readjustments.

The common people of the world he told the assembly, are asking whether the governments participating in the disarmament conference are really in earnest.

"If disarmament is not achieved, he said, "the situation will be far worse than it was before the war. The nations must disarm or perish."

As they seek, they will begin to find.

In considering our own situation it would be highly misleading if we confused the emergency measures which were absolutely necessary to stop the panic with a program of recovery from the depression. The struggle of last spring to defeat the bonus, to testify to our desire to balance the budget, to expand credit to neutralize the effects of hoarding and of gold withdrawals, to support banks, insurance companies and railroads, to overcome the financial panic, While there is good reason to think that the fire has been put under control, it still smoulders in the threat of the bonus and in the accumulation deficit of the Federal government. Therefore, there should be no question of abandoning the measures in effect or of forgetting the fiscal principles on which they rest.

But this program is not a cure for the depression. Its success last summer removed a great danger and thus permitted the constructive forces at work to begin to make themselves felt.

What are these constructive forces? There is, first, and most important of all, the release of economic enterprise through liquidation or reorganization. The weakest producers have failed, a mass of bad debts has been written off, there has been in many lines a steep reduction in costs. The result of this long and cruel process is that a very considerable number of surviving producers can now see the possibility of profitable business at a price level which is lower and on a volume of business which is smaller than that of four or five years ago. This readjustment among producers meeting the accumulation of postponed demand from consumers is beginning to act the wheels turning somewhat faster than they have been.

To this fundamental condition government has contributed and probably can contribute nothing. It is the task and the burden of the people themselves. There is, however, a constructive force set in motion by central authority, not by the government directly but by the Federal Reserve System, which was not only a chief factor in curing the panic but is today the most powerful consciously directed force toward stimulation of business.

This is the Reserve policy of buying government bonds to expand credit. The policy is highly technical and is not easy to understand, and even the most expert hesitate about it. But the main point can perhaps be put in this way:

This just about covers the emergency program as it is now in operation. So far as government or central authority is concerned, it is fourfold, to keep the government finances in order, to use the public credit to support the financial structure, to exert the pressure of surplus money, and to initiate economic activity by the use of public money in self-liquidating projects.

There are numerous smaller emergency devices and various minor efforts at stimulation, but these four items are the heart of the emergency program.

How far it can carry us no one can say. But it is evident that it cannot carry us all the way to what the American people will regard as complete recovery. That will come only when we have solved the deep-seated problem of agricultural purchasing power, the very puzzling problem of excess manufacturing capacity, the permanent, as distinguished from the temporary, problem of unemployment; it will come only when we have made the world safe for commerce by establishing international money, and by organization at least a period of political peace among the great nations.

The emergency program does not touch these questions. They are, however, questions which must find a place on any comprehensive program. For they are intricately bound up with the problem for recovery.

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Cast Is Selected

For Comedy Drama

The cast of characters for the three-act comedy drama, "Wild Ginger," which will be given under the auspices of the Society of the Blessed Virgin of St. Therese church on Oct. 23, has been chosen and rehearsals are being held nightly at the parish hall. Those who will take part are the Misses Mary Baumann, Cecile Black, Helen Pallizer, Julia Paitzer and Mildred Utenbrock, William Van Dyck, Joseph Hartel, Harvey Wolfgram, Sylvester Heiman, Jack Penning, and Sylvester Parker.

Miss Marie Alferi is directing the production and specialty numbers are being arranged for between acts. The play will be given both afternoon and evening.

Women of the Moose Card Party, Fri. Sept. 30, 8 P.M. Moose Hall, 219 W. College Ave.

France Faithful To League Ideals, Herriot States

Refuses to Share in Pessi- mism Prevailing Else- where, He Says

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dence of the spirit of the league has introduced in international affairs and good omens for success at the world economic conference to be held next year.

He took hope, he said, from the entry of Turkey into the league and the prospective entry of Iraq and said he understood also that Argentina, "an old and valued friend," may also soon return.

MUCH TIME REQUIRED

The world is filled with complex and difficult problems which the diplomats must hope to solve at once, he said, adding that the true task which he regards as most important for the league to accomplish is the reduction, and perhaps abolition of secret diplomacy and the ending of the domination by certain powers of world affairs.

Diplomacy should be open, he said, and all nations should be considered on the same level.

Lord Cecil, British representative,

also came to the league's defense,

declaring the existing troubles be-

tween Bolivia and Paraguay over the Chaco and the difficulties in the far east would never have de-

veloped if each party to each dis-

pute had applied faithfully the

principles of the covenant.

"These warlike situations in South America and Asia," he said, "are testimony that one or both of the parties to each case must have been guilty of violating the covenant."

Seventy-five per cent of the

world's unrest, he added, is due

to the policies of France and Germany were guided by the

covenant their dispute would be ended automatically.

"No machinery of peace," he said

"will succeed unless there is a will to peace."

The common people of the world

he told the assembly, are asking

whether the governments partici-

pating in the disarmament confer-

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"If disarmament is not achieved,

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worse than it was before the war.

The nations must disarm or perish."

As they seek, they will begin to

find.

The Federal Reserve policy of

pressure through surplus money is

by all odds the most powerful force

which public authority is exerting

Thursday Evening, September 29, 1932

Certify List Of Precinct Committeemen

74 Democrats and 111 Re-
publicans Received
Votes at Primary

Seventy-four Democrats and 111 Republicans received votes for precinct committeemen in their respective districts at the primary election Tuesday, Sept. 29, according to an official list prepared by John E. Hantschel, county clerk, from the election returns which were checked by the canvassing board this week.

The list shows that Democrats from 36 of the 46 precincts in the county received votes for committeemen. In several cases there are ties and in 10 cases there were no Democratic votes cast for committeemen. Stephen D. Balliet, county chairman, expects to call the committee together soon for an organization meeting. Only committeemen whose elections are undisputed will be seated. These members then will decide who is the committee in those cases where there are ties and they also will name committeemen from the precincts where there were none elected.

Every precinct in the county returned votes for Republican precinct committeeman, although there also are ties between candidates in several precincts. Robert O. Schmidt expects to call his committee together soon to organize and the ties will be settled in the same fashion as by the Democratic group.

Following is a complete list of the men receiving votes for committee:

Democrats

Appleton, First ward, first precinct, John Balliet and George Walsh, one each; First ward, second precinct, Edgar Schommer; Second ward, first precinct, Edward Vaughn; Second ward, second precinct, none; Third ward, first precinct, Peter N. Diny, 6, Dr. R. R. Lally, 5; Third ward, second precinct, none; Fourth ward, first precinct, Ray Diener; Fourth ward, second precinct, Stephen D. Balliet, 4, Al Primesberger, one; Fifth ward, first precinct, Harvey Warren, 6, Mike Blick, 3; Fifth ward, second precinct, James Gerhardt, F. F. Schuler, L. E. Mikles and Mike Marks, one each; Sixth ward, first precinct, John Fink, 2, M. Umuth, 2; Sixth ward, second precinct, John Burke, 4, Tom Day, Clarence Baetz and Orville Hegner, 3 each.

Kaukauna, first precinct, Edward Bay, 6, Richard McCarthy, 3, James McFadden, 3, and Peter Metz, 2; second precinct, Howard Egan and Matt Kuborn, two each; third precinct, E. R. Landermann, 7, and William Galmbacher, 3; fourth precinct, Fourth and Fifth wards, Louis Nelson, 6.

Dale, M. Bottrell, 2, Jake Hanselmann, Birdell Nelson and Herman Schartau, one each.

Ellington, Hugo J. Schuldes, 3, Donald Breitrick and L. E. Nichols, one each.

Freedom, Henry P. Van Dyke, 11, Peter Vandenberg, 4, John McHugh, 3, Harry G. Behling, Edwin Geenan and Frank Murphy, one each.

Grand Chute, John Guelff, 3, Emmet O'Connor, 2, Ervin Gauerke, Fred Hartzworth and Ted Newman, one each.

Greenville, Harry DeBruin.

Hortonia, Merton McDermott.

Kaukauna town, Bert Van Vreede, 3, James Farrell, 2, Fred Miller, 2, William Heindel, one. Peter Vanderlinen, 4, Pat McCabe, one.

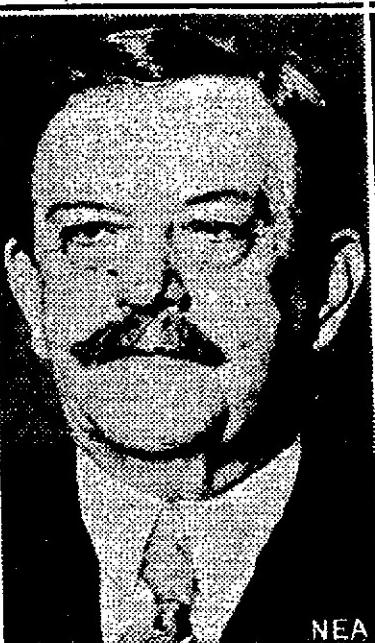
Liberty, none.

Maple Creek, Jerry McPaul.

Oneida, none.

Osborn, John Kerin.

Senate Nominee



Ellison D. Smith (above), veteran South Carolina senator, decisively won his state's run-off Democratic primary for the Senatorial nomination—a victory equivalent to election. His defeated opponent was former Senator Cole L. Blease.

Seymour town, Frank Leisgang, 2, Charles Ebert, one.

Vandenbroek, Dick Demerath, 5, Clarence Van Camp, 3.

Third ward, New London, none.

Bear Creek village, D. J. Flanagan, 5, Mrs. D. J. Flanagan and George Robman, one each.

Center, N. L. Gross.

Buchanan, Peter Kauth, 7, R. Lamers, 2, William Rohan and P. J. Clunn, one each.

Black Creek, Harry Mueller.

Seymour, First ward, Ivan Dunbar.

Seymour, Second ward, Grover C. Talc.

Combined Locks, Malachai Ryan.

Hortonville, Joseph Platten.

Little Chute, Anton Jansen, 62, J. S. Wynbom, 41.

Shiocton, E. W. Kuether, 39, L. Lock, 14.

Oneida, Fred R. Hill, 150, P. W. Silverwood, 131.
Osborn, Arnold L. Muenter, 6, William Klitzke, 4, H. Sievert, 2, Seymour town, Alfred Mueller, 6, Charles Willis, 2, Vandenbroek, Jake Demerath, 23, Elmer Boonen, Nic Noonen and Clarence Van Camp, one each.

New London, Third ward, William Kimber, 4, C. Runnells, one.

Bear Creek, C. G. Ballhorn, 5, Adolph Meyer, H. A. Rasmussen and William Steffen, one each.

Center, Carl Kreutzman, 5, F. Ort, 4, Frank Schroeder, 3, Joseph Fischer, 2.

Black Creek, William Deffering, 4, Otto F. Rohm, 2, H. C. Graupman, 2, John Fuhrman, one.

Bovina, James Kennedy, 3, Alfred Moehring, 2, Howard Andrews, George Pierce and Frank Brightman, one each.

Buchanan, J. J. Henk, 4, August Wundrow, J. V. Vahrenhei and J. Grafmer, one each.

Cicer, Guy Daniels, 10, Walter C. Blake, 9, Jacob Hahn, 6, Emil Mueller, 5, scattering, 4.

Black Creek, Willard Last, 28, Lee Barth, 3, R. H. Gehrk, 3, George Kitchen, one.

Kimberly, J. T. Doerfler, 10, Joseph Sandhofer, 6.

Seymour, Second ward, Marvin Blackett, 30, C. H. Heagle, 28.

Seymour, First ward, George Fiedler, 46, Fred Frank, 35.

Combined Locks, William Erickson.

Hortonville, Emil Diestler, 37, F. O. Smith, 9, W. L. Schroeder, 4.

Little Chute, Anton Jansen, 62, J. S. Wynbom, 41.

Shiocton, E. W. Kuether, 39, L. Lock, 14.

Leeman 4-H Club to Sponsor Local Fair

A local fair will be staged by the Leeman 4-H club at the Maine town hall on Wednesday evening, Oct. 5. A program and exhibition is being planned by club members, under direction of Mrs. Fred Falk, leader, and Miss Carol Nelson, junior leader. Miss Harriet Thompson, county home demonstration agent, will give a talk on club work.

Plan Reorganization of City Water Commission

Reorganization of the city water commission will take place at the

Jews Prepare for Holiday Season

Period Starts Saturday With Rosh Hashanah, Jewish New Year

The Jewish holiday season, which ends Oct. 15, starts with Rosh Hashanah, the Jewish New Year, on Saturday.

Services in the synagogue will be held from Friday evening until Sunday morning. The Rev. Zussman will be in charge of the 5:30 services Friday and Saturday evenings, and Rabbi S. Wrubel will preach at the Saturday and Sunday morning services, which will start at 7:30, with sermon at 10 o'clock.

His subject Saturday morning will be Rendering an Account, and Sunday morning, Woman's Debt to Mankind. A modern service for young people will be held after the sermon Saturday and Sunday mornings.

Rosh Hashanah will be observed Saturday, opening the 10 days of penitence which culminates in Yom Kippur, the day of atonement on Oct. 10 and 11. Sukkoth, the feast of the tabernacles, will be observed on Oct. 14 and 15.

The Rosh Hashanah festival is distinguished by the blowing of the Shofar, or ram's horn. In addition to its joyous and optimistic character, it is a festival of great solemnity and sacredness. On Rosh Hashanah the worshippers call to mind the misdeeds of the past year with a view to consecrating themselves to a nobler life during the years to come.

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Guardsmen Will Fire Machine Gun, Pistol

Members of Co. D, 127th Infantry, Wisconsin National Guard who still must fire machine gun and pistol for record qualification, have been ordered to the company range on Saturday afternoon and Sunday morning. All firing must be finished within the next few weeks, according to Capt. Claude P. Schroeder. Practically all of the company has completed firing and an effort is being made to qualify every man in machine gun and all

who must qualify in use of the pistol. Only men who failed to qualify last year must fire pistol.

Balliet at Democrat

Rally in Milwaukee Stephen D. Balliet, chairman of the Outagamie County Democratic committee, was in Milwaukee today where he planned to attend a reception for Governor Franklin D. Roosevelt, Democratic nominee for president. Gov. Roosevelt was to give a short address following a dinner for prominent party members of the state.

FURNACE EXPLODES
The fire department was called to the residence of W. Toll, 519 N. Sampson-st., about 7:30 this morning when burning rubbish in the furnace exploded and led occupants to believe a fire had started. No damage resulted.

JOIN THE Y.M.C.A.
THIS WEEK

WATCH OUR WINDOW FOR Specials

I. C. DIMMICK

Successor to W. H. Hackleman 611 W. College Ave., Appleton

A tip for Young Shoppers

Furnishings for Your Youngsters

Waist Union Suits

The reliable "Minneapolis" brand. Medium weight, high neck, short sleeves, French legs and drop seat. Sizes 4 to 12.

50c, 99c

Knitted Waists

Light weight cotton waists with taped buttons and pin tubes. In sizes from 2 to 10 years.

25c

Knit Panties

"Minneapolis" panties for children from 3 to 6 years. Medium weight, French leg style. In white

25c

Sleeping Garments

"Minneapolis" Byn-Bi sleeper in sizes 3 to 10 years. Medium weight, grey and white mixture. Very warm.

98c

Boys' Union Suit

A medium weight cotton fleece suit with high neck, long sleeves and ankle length. Drop seat. Random mixture. Sizes 4 to 12.

59c

Part Wool Unions

For boys. A warm union suit with long sleeves and long legs. High neck, closed crotch. Sizes 4 to 14.

\$1.48

Children's Union Suits

A comfy part wool, rayon stripe suit with dutch neck, elbow length sleeve and knee length. Drop seat. Sizes 4 to 10. Minneapolis brand.

98c to \$1.19

Girls' Union Suits

Another Minneapolis suit. PART WOOL, rayon stripe, band top and knee length. Sizes 10 to 16.

98c, \$1.19

"Hickory" Garters

The old reliable type. A tablet FREE with each pair.

25c

Children's Waists

White knitted waists equipped with garters.

39c

Boys' Golf Hose

Novelty patterns in two color tones. Plain ribbed with cuff top. In grey and tan. Sizes 7 to 10.

Pair 19c

Cotton Hose

Children's hose in the derby rib. Medium weight and durable. Beige and camel shades. 6 to 9.

10c

Rayon Plaited Hose

A serviceable school stocking in Stone, Bran and Crevette shades. Mercerized heel and toe. Ribbed. 6 to 9.

Pr. 25c

Infants' Stockings

A fine rib rayon-plaited hose in white, beige and champagne. Sizes 4 to 6.

Pair 19c

Boys' Stockings

Heavy ribbed black hose with reinforced heel and toe. Makes an excellent school stocking. 6 to 10.

Pr. 25c

Girls' Hand Bags

Pretty little purses for the misses. In pouch or handle style. In blue, red or green.

19c to 39c

Flannel Sleepers

For children. Made with or without feet. Have drop seats. In pink or blue stripes. Sizes 2 to 6 at 59c. Sizes 8 to 14 at —

79c

Flannel Pajamas

One and two piece styles for girls. In plain colors or pretty printed patterns. Sizes 8 to 16.

79c, 98c

Relief Group Will Discuss Winter Plans

Council to Meet Friday
Afternoon at County Courthouse

The Appleton Welfare and Relief council will meet at the office of Judge Fred V. Heinemann at the courthouse at 3 o'clock Friday afternoon to discuss plans for its work during the coming winter. Funds of the council are practically depleted and some steps must be taken at once to replenish them, according to Judge Heinemann.

The council is composed of representatives of most of the charitable organizations in the city. Each member organization conducts its own relief work, but bills are paid and materials are supplied through the council as a central agency. The council, in turn, is in close affiliation with the municipal public relief system. This plan prevents duplication of effort and unifies the entire relief system by combining the municipal and private relief programs. Judge Heinemann is chairman of the council.

Students Observe All-College Day

Freshman-Sophomore Contests Won by Incoming Class

All-college day was observed

Wednesday by the students of Lawrence college. The freshmen

copped the honors of the day by

winning all the frosh-sophomore

contests at the Whiting athletic

field. An all-college dance ended

the day's activities at Alexander

gymnasium in the evening.

With no convocation Wednesday morning, classes ended at noon.

Freshmen congregated at Memorial

chapel at 1 o'clock in the afternoon

and paraded on Appleton's prin-

cipal streets and out to the athletic

field. The parade was led by a pep

band. The frosh paraded to the

Appleton high school and then back

to the campus. There was a march

through Russel Sage dormitory that

putted the upper-class girls.

Contests between the freshmen

and sophomores began with a tug-

-o-war, which the freshmen won.

The horse and rider contest ended

in a tie, but the frosh came back

strong in the bag race by taking all

five bags over the sophomore goal

in a fierce struggle. The freshman

girls won the softball game from the

sophomore girls. Thomas Leech,

Wauwatosa, acted as freshman lead-

er during the activities.

In the senior-faculty softball

game the seniors took an 11 to 1

win from the teachers.

Marshall Wiley, president of the All College

club, was in charge of the arrange-

ments. Charles Karsten was in

charge of the afternoon program,

and John Reeve was in charge of

the evening program. The dance in

the evening was well attended.

The Weather

THURSDAY'S TEMPERATURES

Coldest Warmest

Chicago	52	70
Denver	48	68
Duluth	42	58
Galveston	68	78
Kansas City	50	74
Milwaukee	46	70
St. Paul	36	72
Seattle	54	80
Washington	54	78
Winnipeg	46	56

Wisconsin Weather

Generally fair tonight and Friday; not so cold tonight west and north portions; warmer Friday; frost tonight.

General Weather

Generally fair weather has prevailed over the entire country during the past 24 hours except for showers yesterday over the lower lakes and the northeastern states. High pressure which is centered over western Iowa this morning has brought cooler to the upper lakes and the upper Mississippi valley, with heavy frost reported from western Wisconsin, Iowa and Minnesota. Continued fair weather, with slowly rising temperature, is expected in this section tonight and Friday, with frost tonight.

Another Group of Sophs to Organize

Another group of sophomore boys from Appleton high school is in process of organization. There originally were six boys in the group, but three more have been added to make nine. Next week's meeting has been set for Wednesday night at the boys' department of the Y. M. C. A. Officers will be elected and a leader named C. C. Bailey, boys' work secretary of the Y. M. C. A., is sponsoring the group until it is organized.

Council Members to Dine at City Home

Members of the council and employees in the city public relief department will be entertained at a dinner at the City home at 6 o'clock Thursday evening. Distribution of public relief funds will be discussed after the dinner.

Rubbish Collection Starts Next Tuesday

The regular monthly collection of rubbish will be started Tuesday morning by street department crews. Theodore Albrecht, street commissioner, informs homeowners that no receptacles containing garbage will be collected. Any collection of garbage and rubbish combined will be left at the curb, he states.

A French inventor has perfected a pistol that knocks out a victim with a strong blast of compressed

Italian Housemaids Think Mock Air Raid Indicates Real War

Vandebogart Is Discharged by Fire Commission

Officer Thomack Suspended for 30 Days With-out Pay

CONTINUED FROM PAGE 1

sergeant to patrolman on charges of drunkenness Mr. Bradford pointed out.

Pleads For Leniency
"Vandebogart is a man with a family," Bradford told the commission. "We are asking that you do not invoke the heaviest penalty possible—discharge from the force. He has spent 19 years of his life in police work and there is no other field to which he can turn to make a living. In a little more than two years he will be eligible for a pension and we ask that you be lenient in consideration of his long years of service with the department. We expect that Officer Vandebogart will be punished, but we are merely asking that he be not discharged."

The accused officer made a statement in his own behalf before the commission in a secret session in the committee room. Vandebogart's story of the events which occurred on the morning of Sept. 17 was as follows:

"I came from the alley behind the Zuelke-blid shortly after 3:30 a.m. that morning. When I reached the corner I met Officer Thomack and asked him about the car which was parked on the east side of Oneida-st, near the jewelry store. He just laughed, so I crossed the street and reached in and felt a number of bags with cans in them in the back of his car. I again crossed the street and talked with Officer Thomack and with Officer Walter Hendricks appeared.

Offered \$50 Bribe

"About that time a man came west on College-ave and talked to us, saying he wanted to speak with me. We started west on College-ave and stopped in the entrance to the Zuelke-blid where he said, "There's \$50 in it if you let us move that car."

"I turned down this bribe, pointing out that in all my years on the department I had never accepted money. Then he said I should help myself and I went across the street and pulled one of the bags of alcohol through the window. Before that I asked Officer Hendricks and Thomack to help me lift out the bag, but they both refused. I carried the bag behind the Zuelke-blid and after we checked off duty Officer Thomack took me to the place where the bag was hidden and I put it in his car and took it home."

Details of the affair as told by Officers Thomack and Hendricks differed considerably from Vandebogart's story. Thomack said when he saw Vandebogart, the latter was coming east on College-ave and not from the alley, as he stated. The officer also told of a second car which stopped beside the parked car while Vandebogart talked with the driver. Vandebogart later explained that he was merely directing the driver to College-ave.

Testimony Differs

Thomack also testified that Vandebogart opened the door of the car and took the bag out before he talked with any men. He said that after the officer took the alcohol, two men came across College-ave from Schmidt's Clothing store and approached the three officers and asked to talk with Vandebogart. They walked away and talked for a short time, when Vandebogart rejoined his fellow officers and the three went to the station. Thomack said that at first he refused to take Vandebogart home with the bag, but said he later was persuaded to do so. He said Vandebogart offered him a part of the alcohol, but that he refused this.

Officer Hendricks story was similar to that of Officer Thomack's. He told how he went to this car with Vandebogart, and how the latter urged him to help carry away the alcohol and to accept a share.

Hendricks said he warned Vandebogart that he was doing wrong and that he refused to take part. Hendricks said:

"When I told Vandebogart we ought to arrest the drivers, he answered, "What's the use, they'll only let them go anyway."

The officer was specific on two points, and that was that Vandebogart took the alcohol first and then talked with two men who came across College-ave.

Vandebogart, in rebuttal, insisted that he talked to but one man, but he admitted, finally, that he took the alcohol before he talked to him.

He also said that he might have opened the door of the car to remove the bag, but that he thought he had not.

Car Wasn't Tagged

Officer Hendricks testified under cross examination that when he saw a car parked on the street between 1 and 5 o'clock in the morning he placed a tag on it. He didn't tag the car in question, he said, because the officers do not tag cars on a fellow officer's beat. Thomack said he didn't tag the car because it wasn't customary to tag a car when the officer knew the owners were but a short distance away, evidently in a restaurant.

Both Officer Hendricks and Thomack said this was their first experience with liquor transportation through Appleton by bootleggers. Vandebogart, however, told of seeing other cars. He also said the second car, which he directed to College-ave that night, was loaded with alcohol and that later a certain Appleton saloon man came to his home and said this alcohol was being delivered to him.

Chief Prim told how Officer Hendricks reported the affair to his superior officer and how both

Thomack and Vandebogart admitted their guilt. The cans of alcohol, which were turned over to the chief by Vandebogart, were brought to the city hall and offered as evidence.

The government wants to determine if so-called high-pressure methods of selling securities that later become practically worthless constitute use of the mails to defraud," Harness said. "The inquiry will be directed toward the manner in which the bonds were marketed."

Investigate Sale of Bonds in Milwaukee

Milwaukee (P)—Two representatives of the federal bureau of investigation at Washington, went before the grand jury here today with two trunkfuls of evidence and numerous reports which they were prepared to introduce in the jury's investigation of the sale of bonds in the Wardman, Real Estate Properties, Inc.

Nearly \$200,000 of the bonds, marketed through Halsey, Stuart and Co., were purchased by investors living in eastern Wisconsin, according to the investigators, Forest A. Harness, special prosecutor, and E. J. Armbruster, special agent.

Subpoenas for about 25 employees of the company and purchasers of the bonds have been issued.

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A French inventor has perfected a pistol that knocks out a victim with a strong blast of compressed

PILING UP YANKEE RUNS



Lou Gehrig safe at home, scoring one of the five runs piled up by the New York Yankees in the sixth inning.

(Copyright, 1932, NEA Service, Inc., Telephoto)

Peonies, Old Favorites, Best Planted in Autumn

Job of Campaign Manager Seems to Be Thankless One

Most of Them are Forgotten After Elections Are Over

BY RODNEY DUTCHER

Washington.—The men who manage and help manage political campaigns are a hapless lot. Nobody loves them and usually they are not especially lovable. If their candidate loses they usually drop off into oblivion and even when he wins they are likely to learn that he is a jinxed and thankless job.

Peonies are such delightful flowers that it is difficult for one not to become an enthusiast to the point of growing dozens of varieties. If Peonies become one's hobby arranging the plants so they are displayed to best advantage. Create a special garden for them, and interplant some Delphiniums, hardy Phloxes, Aster, and perhaps Chrysanthemums, to provide interest when the Peonies are out of flower.

In fact, you might say that Democratic political managers have usually been happily forgotten once their man lost the election whereas Republican managers more often than not have remained in the picture a while only to squirm and suffer.

William M. Butler, the Massachusetts millionaire, was Calvin Coolidge's campaign manager and all he got out of it was a temporary appointment to the Senate and a couple of tragic tries at being elected to that job, with Cal's endorsement. He has faded back into the position of a campaign contributor, if he is that.

And other fumbles at Chicago, but he came through on top. Of course if his man loses the election no one is likely to hear of Mr. Farley again and there are plenty of pitfalls ahead of him prior to November.

The first season they should be protected a little from freezing in order to prevent their being heaved out of the ground. Afterward they are better off without litter or any covering which might harbor disease.

In planting Peonies do not bury them too deep. The eyes should be just under the surface when the soil is thoroughly settled. In newly made beds they should be set about two inches deep to allow for subsequent settling.

Peonies are reliable plants. They are remarkably free from insect or fungus troubles and you need rarely spray them. Just keep them well cultivated and fertilized with bone meal each year and they will then delight you with their constant improvement and flowers of unrivaled beauty.

The result is that his leisure is just about limited to the eight hours which he tries to spend in bed every night.

"I receive an average of 20 delegations or individual visitors a day," he complained recently. "I have documents that I must study even in my sleep—or rather go without it. Thank heaven the blissful vacation season allowed me at last to keep up with my jobs."

Farley has always been a worker. Born a poor boy, son of a captain of the gendarmerie, his schooling was broken by his father's frequently enforced changes of residence in garrison towns. Nevertheless the son qualified for a scholarship that gave him free tuition through the higher university grades in Paris and elsewhere.

While still in his twenties, he became a high school teacher in rich, industrial Lyons. He so pleased the people there by his personal charm and ubiquitous sympathies that they elected him mayor of the great city athwart the Rhone.

That position he has held for more than a quarter of a century.

In the old days, when he had only one position, or two at the most, he used to be able to turn out a book or so a year—literary studies, treatises on economics, or municipal government. Those works helped to keep the family not boggling.

Now, enthroned in his triplite grandeur, he finds it impossible to follow up his real predilection, that of a writer.

"Have you a book in preparation, Mister President?" a recent interviewer asked him.

"Alas, yes!" he replied; "and a good one, on French provincial life! But it cannot be completed until the

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ELECTRICITY CELEBRATES

Tomorrow the electrical industry joins with the city of Appleton in commemorating the fiftieth anniversary of the opening of the world's first hydro-electric central station. Just fifty years ago on Sept. 30, 1882, William D. Kurz, then a mere youth of 20 years, threw a switch in a little Appleton paper mill and started an industry that revolutionized civilization and was a major factor in making America the richest country on earth.

The celebration tomorrow not only commemorates the opening of this first station, but it marks the fulfillment of Thomas A. Edison's prophecy that his invention of the electric light marked the end of one epoch in civilization and the beginning of another. When Edison made his prediction fifty years ago it was attributed to the natural enthusiasm of the inventor, then in his thirty-fifth year, but the half century has proved that he saw more clearly than his contemporaries how electricity would transform society.

That Appleton had a particularly important part in the fulfillment of Edison's prophecy is due entirely to the pioneering spirit of its leading citizens a half century ago, and the enterprise of the men that followed them. Nearly 1,000 miles from the scenes of Edison's labors and with only meager means of obtaining accurate information about his developments, these enterprising Appletonians nevertheless saw the possibilities of electrical illumination and were the first in all the world to use waterpower for generating the magic current. Not even Edison himself was more sanguine nor more caring than these Appletonians. With no experience to guide them, and with the leading scientific minds of their day publicly doubting the success of the experiment for such it was, they gambled with their money and their reputations.

Perhaps it was a characteristic of the middle west to take chances and to be optimistic; at any rate the confidence of the promoters of this first hydro electric plant was contagious. A writer in the Appleton Post, commenting on the opening of the plant, declared "the electric light is perfectly safe and convenient and is destined to be the great illuminating agent of the near future." Edison could hardly be more optimistic or more prophetic than these pioneers of Appleton.

But not even the most prophetic mind could envisage the mighty industry that sprung from this tiny plant, lighting two paper mills and one residence. It is a long step from kerosene lamps to the modern electric lighting systems, from the horse and buggy to the electrically driven subway trains, from the broom and the carpet beater to the electric sweepers. No age in all the history of mankind has seen such tremendous progress as has been made since that eventful day in September of 1882.

Pioneering, however, was not confined to the men who originated the electric central station. The half century has been a constant history of pointing the way, of opening new fields, of entering new territories. Even in this modern day the spirit of the pioneer still drives the industry into virgin territories to bring comfort and ease to more people.

In this modern pioneering Appleton also has had a major part. Our city now is the center of a far-flung system of electrical lines that reach for hundreds of miles and carry power and light into scores of communities. The early leaders in the electrical industry here, the men who showed the way to the rest of the world, have had worthy successors in the management of the enterprise and none has left a greater impress upon it than A. K. Ellis, the present general manager of the electric utility and primarily responsible for tomorrow's celebration. Such progress as has been made here in the last quarter century, and it has been enormous, is due very largely to the vision and energy which is characteristic of Mr. Ellis.

Tomorrow's celebration, then, must be a tribute to the present as well as to the past. But for the enterprise of the pioneers there would be no electrical industry today; but for the energy of the pioneers of today the industry would still be in its infancy. There is no need to consider which should receive the major credit, there is glory enough for all and a great deal left to spare.

TELEPHONE COMPANY INJUNCTION
The temporary injunction granted in Federal court to the Telephone Company restraining the immediate enforcement of the 12½ per cent rate reduction, was almost a necessity so long as the public is adequately protected in case the Telephone Company ultimately loses, in which contingency it will owe its subscribers a substantial amount of money.

The Federal court had before it the knotty problem of trying to protect the interests of both sides of a controversy until full proofs were produced before it that it might definitely determine which side is in the right. It ordered the Telephone Company to post bond of a million dollars conditioned to repay, in case it loses the litigation, the 12½ per cent which, in the meantime, it is permitted to exact of its subscribers.

Various other methods have been prescribed at times by the courts to encompass the same ends. A New York court at one time compelled the utility to deposit the amount in dispute in a separate fund over which it had no control and could not withdraw, and issue to the people separate receipts so that when the utility lost the litigation, as it did, the depository would pay the funds promptly and directly to each person affected according to the amounts fixed by the receipts. It looked like a good, safe and sensible plan, but it had flaws.

Since the litigation lasted several years and most people did not understand it, they were quick to sell their receipts for a few cents on the dollar. It was found that the utility realizing the doubtful merit in its own position had been a large purchaser of these receipts for a trivial amount, so that although it lost the litigation it gained most of the money.

The Wisconsin Telephone Company is a sound institution. The questions in dispute between it and the State are some of them new, all of them important, and must go to final decision by the highest tribunal and thus remove for all time any shadows from the authority of the State in the premises.

The bond required by the Federal court will serve the purpose.

The really important thing now is to insure a full and able presentation of the evidence for the people before the court.

TURNING CRITICISM INTO MONEY

Mrs. Eddie Conne of Chicago went to a night club one evening and didn't like the music. Thereupon she achieved a career.

Mrs. Conne told her husband she could compose a better song than the one the orchestra was playing. She wrote it on the back of a menu card, took it to a song publisher and presently the song was a hit. Mrs. Conne, who writes music under a pen name, now has several hits to her credit. Telling the story of that first attempt at a musical composition the other day she said, "I'm glad the music in that night club was so bad."

Probably plenty of other people have been annoyed by the sounds of blatant orchestras. Probably also though they had tried to write something better they would not have found publishers. Mrs. Conne, however, had the courage of her convictions. How many men and women, convinced they can do something as well or better than their neighbors, fail to put their convictions to the test? They bemoan other's failures. They criticize, but they don't set to work.

Mrs. Conne did—and has been rewarded. There's a lesson in that for those who would write songs or "build a better mouse trap."

Opinions Of Others

\$10,000,000 RACKET

All politicians of both parties from President Hoover down who are crying federal economy have been put to the test by a simple bill introduced in congress. The Maas bill proposes to save \$10,000,000 a year by the easy device of abolishing the office of postmaster in all first-class and most second-class post offices.

The postmaster racket is a form of government waste and luxury which the country and the taxpayers cannot afford. Each party should pay for its party workers, instead of grabbing a postmastership and a government salary while they do virtually no work for the government.

About one-third of the 48,000 postmasters are political appointees of the president, many of them living on doles through the spoils system. Describing the first-class and many of the second-class post offices, Representative Maas is accurate in stating:

"The technical knowledge for the actual administration of these post offices is not possessed by the postmaster, who is appointed merely as a political reward. The main function apparently expected of the postmasters is to defend the party and to work for reelection of the president who appointed them."

This racket, of course, was not invented by the republicans; the democrats play the same game when they are in power. We use the term "racket" advisedly, meaning a system by which the people are made to pay for something they do not get.

The only strange thing about the Maas bill is that it stops with the upper-class postmasters. It should go up and include some of the cabinet and sub-cabinet officers who draw government pay for running a party machine and making party speeches.

We have nothing against these gentlemen, either as individuals or as politicians. But we object to the system by which federal funds are used to subsidize their party work, instead of being used to balance the federal budget, or to pay federal debts, or to feed the unemployed. We could not interfere with their work. Let the postmaster general and the secretary of war, for instance, go on with their heavy party work, and let the assistants go on with their government jobs for them. Merely dock the postmaster general and the secretary of war for the time taken off from government work and all other federal executives who are not kept busy on government business.—N. Y. World-Telegram.

Tomorrow's celebration, then, must be a tribute to the present as well as to the past. But for the enterprise of the pioneers there would be no electrical industry today; but for the energy of the pioneers of today the industry would still be in its infancy. There is no need to consider which should receive the major credit, there is glory enough for all and a great deal left to spare.

Rice accounts for about 80 per cent of Siam's exports.



IT IS twelve thirty central standard time as these lines are pounded out. Reports came drifting in regularly that the first game of the World Series was being delayed by rain. In New York it was one thirty as this was written. In Los Angeles it was only ten thirty. In Vladivostok it was—lessee—well—anyway, what difference does it make. The rain was holding up the World Series and people were getting that very tense expression on their respective faces and it all was very hard to understand.

In this section of the middle west, the atmosphere was clear, the weather charming. The fact that the World Series was being held up until the rain stopped made no difference to your diligent correspondent Uncle Jonah, of course. He was calmly working as usual and even if the game had been going full blast he would not have been taking time away from his duties to listen to World Series are much fun to listen to, of course. But our public comes first, always. (Hey—has that game started yet?) Tomorrow, of course, (Thursday, to YOU) it may be our duty to our public to listen to and comment upon the game. (Dear Boss—please read that last sentence over again.) On Wednesday of course, with nothing as yet happening, we are devoting all our time to writing. (YOU SAY IT'S STOPPED RAINING?) We couldn't even be induced to leave our typewriter and go listen to a radio. Mirosh (YOU SAY THE PLAYERS ARE WARMING UP?) Y'know, a fellow who would leave his work to listen to a ball game over the radio certainly can't have his work at heart.

WHAT'S THAT? THEY'RE ABOUT TO START PLAYING ANYWAY? And sometimes we think it would be a good idea to not broadcast the games so temptation would not be both bringing people who should be working instead of listening. (HUH—YOU SAY HERMAN IS UP AT BAT!) And anyway, it's just another ball game even if it is for the championship. (THE GAME HAS STARTED HONESTLY?) Well, folks, we hope you profit by our little lesson. (HEY TURN ON MORE VOLUME—THAT ISN'T LOUD ENOUGH! THE CUBS HAVE SCORED!) Jonah-the-coroner

Just Folks

By Edgar A. Guest

THE PIONEER

He came too soon, and being here, tried to tell us best he could. What none of us quite understood. Although to him the fact was clear.

Fanatical at times he seemed.

Insisting that with him we see Forward a quarter century.

And dream the splendors which he dreamed.

We thought him wrong because our sight lacked the far vision he possessed.

Off of his dreams we made a jest. Now time has proved that he was right.

Friends' pity and the common fears Of darkness and the vast unknown And always to press on alone. Such is the fate of pioneers.

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Looking Backward

TWENTY-FIVE YEARS AGO

Thursday, Oct. 3, 1907

An impromptu speech made by President Roosevelt at Alton that morning, while enroute to Cairo, Ill., contained a clause which he repeated several times and which was taken to again express his determination not to be a candidate for a third term. The clause was "during the remainder of my term."

Miss Esther Haslam, Appleton, former resident of Green Bay, was visiting friends and relatives in Green Bay.

The home of Fred Stoffel on State and Eighth-sts., was nearly completed.

Charles Wolf returned the previous day from Chicago where he had been spending four days with friends.

Mr. and Mrs. Paul Hackbert and son, Harland, had returned to their home from a visit with relatives and friends at Fort Atkinson and Edgerton.

Miss M. Geenen was at Chicago that week on a business trip.

Stephen Murphy was spending a few days at Grand Rapids, Mich., on business.

TEN YEARS AGO

Thursday, Sept. 28, 1922

A proposal to endorse Henry Ford for the presidency of the United States in the 1924 general election was prepared for presentation to the resolutions committee of the Democratic convention at Bay City, Mich., that day.

The wedding of Miss Leila Richardson, daughter of Mr. and Mrs. F. I. Richardson, 480 Pacific-st., to Anselm Steinberg, son of Mr. and Mrs. John Steinberg, 922 Pacific-st., took place at 8 o'clock the previous evening in First Congregational church.

The marriage of Miss Martha Kruse, daughter of Mr. and Mrs. Fred Kruse, 202 Washington-ave., Neenah, to George Skall, son of Mr. and Mrs. Rudolph Skall, 501 State Road, Appleton, took place at 8 o'clock the previous Tuesday evening in St Paul Lutheran church, Neenah.

Miss Dorothy Koss, daughter of Mr. and Mrs. William Koss, 736 Second-ave., and Edwin Kalbunde, son of Mr. and Mrs. Klubunde, Two Rivers, were married the previous Tuesday noon at the home of the bride's parents.

Mrs. W. L. Milner, Toledo, Ohio, had returned home after visiting for a few days with Mrs. Peter Thom, 558 College-ave.

A milk-white river, due to the water flowing over limestone and so becoming saturated with chalk, and a lake which generates soap from its alkaline limestone bed, are two of the curiosities of the island of Andros, one of the Bahamas.

Henry O'Malley, commissioner of the bureau of fisheries now in Alaska for the summer, reported the salmon run in the Chignik river as the largest in history.

An American engineer surveying a highway route in the kingdom of Hedjaz is said to be the second living Occidental to have crossed the Arabian peninsula from coast to coast.

There were 37 convictions for bank robbery in Indiana in the year ending May 1, 1932, resulting in sentences totaling 700 years in prison.

Three new highways in the Yemen, in the Near East, are being constructed over routes now served by pack animals.

Beach mining at Nome, which produced several million dollars' worth of gold in the rush of 1898, is being revived.

Rumania prohibits all transactions in foreign exchange except through its national bank.

Rice accounts for about 80 per cent of Siam's exports.



Personal Health Talks

BY WILLIAM BRADY, M. D.
Noted Physician and Author

CALCIUM FOR MIGRAINE HEADACHES.

I have received so many testimonials like the following that I begin to think there may be something more than coincidence in it. I wish our readers who have migraine would give the thing a clinical test and report what results they experience. If a thousand migraine sufferers were to do that we'd have something tangible to go on:

"Another important cure we have achieved in our family is the calcium lactate you suggested for my migraine headaches. I could write a book on how I have suffered days in bed crazy with pain. The warning of numbness and spots before my eyes was enough to cause suicide before the attack a full. Have taken the calcium lactate only a few months and not regularly, but will always keep some on hand and in my system. For over 5 years I suffered—had tried many things to help, but with little benefit until you told me of calcium lactate. The only periods of temporary relief I had were when I was nursing babies, when the attacks were few. But now there hasn't been a severe attack since I began taking calcium lactate.

By the way, I hope any other readers who may report about this will be good enough to tell me briefly how long they have been subject to migraine, how frequent the attacks, the premonitory or warning signs of attacks are, whether vomiting occurs, whether the attacks put them in bed, and the present age.

The use of calcium (lime) in any form is based on the observation that in many cases of migraine there is a deficiency in calcium metabolism.

Calcium lactate is selected because it is fairly soluble and perhaps less likely to irritate the stomach than other forms of lime. A fair dose for anybody to take is 10 grains of calcium lactate (in powder or in tablets, or in a syrup or sweetened elixir) three times a day, after food. This should be continued daily for a period of not less than eight or 10 weeks, in order to give the treatment a fair trial. After that, if it seems beneficial, it may be taken once a day or just a few times a week, or, in some cases a second course of eight or 10 weeks may be taken a year later.

It is my theory or rather a theory which seems good to me, that the metabolism or utilization of calcium (lime) in the body is favored or promoted by the following, which migraine victims or may not care to employ along with the calcium lactate medication:

1. Exposure of the naked skin to sunlight, or if sunlight is not available, then ultraviolet rays from any carbon arc or mercury vapor quartz lamp.

2. A daily dose of cod liver oil.

3. In some cases parathyroid gland hormone—which, of course, can be had only from your own physician.

Calcium lactate may be bought in any good drug store. It decomposes on long keeping. It should make a clear or nearly clear solution in water. If the solution contains a white precipitate or cloud the calcium lactate is not fresh and should not be used.

I have no definite knowledge of the value of calcium lactate as a remedy in other forms of headache than migraine, but some physicians have found it helpful in certain cases of dull heavy throbbing ache in the frontal and temporal regions, which patients have on awakening in the morning.

QUESTION AND ANSWERS.

Lip Reading for Deaf

If your young correspondent who wants to learn lip reading and become

Thursday Evening, September 29, 1932

Radicalism to Be Big Issue In Campaign

Republican Line of Attack Is Expected to Stress "Danger" of Change

BY DAVID LAWRENCE

Washington—Do people want a radical group in control of government ready to put into effect the various schemes which were frustrated in the last session of congress such as bonus payments and tinkering with the currency?

This is the question which the Republican leadership is preparing to ask the country to answer. Although Gov. Roosevelt himself has been endeavoring to erase the impression of radicalism, the Republican chiefs in their conversations about the campaign insist that the choice is not between Roosevelt and Hoover but between a group including Senators Norris of Nebraska, Dill of Washington, Wheeler of Montana, Huey Long of Louisiana, and William Gibbs McAdoo and Speaker Garner on the one hand and men like Ogden Mills and the conservative Republican group in both houses of congress on the other.

Mr. Hoover himself has wielded the veto power as a check against experiments and proposals in legislation that have been attacked by the business interests of the country as unsound as well as unsettling. He calls now for support on the group that a change in government will bring a dangerous situation, in that the radicals will really be in control of congress and the White House.

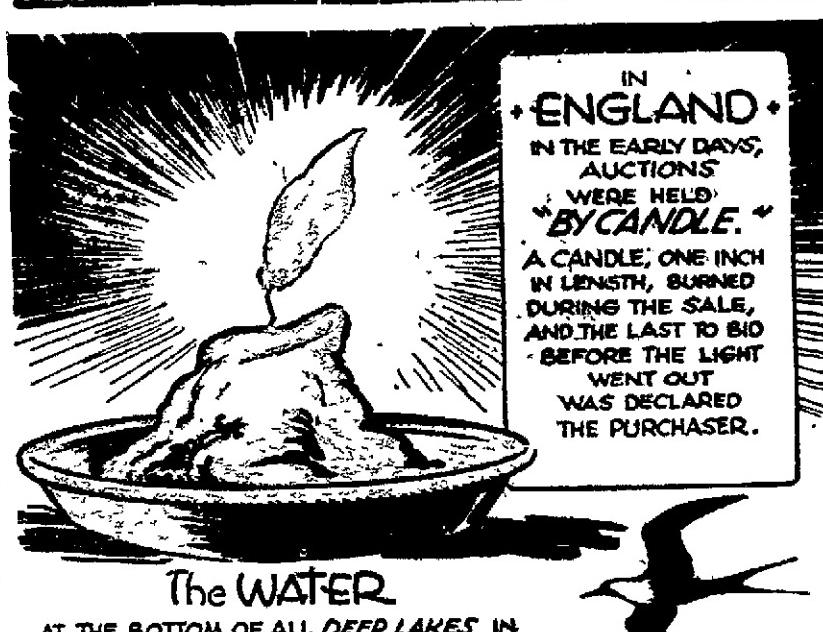
Democrats Not Uneasy

Democratic observers are not disturbed by this line of thought, for two reasons: First, they think Mr. Roosevelt can offset it by announcing the type of men with whom he will be associated in the cabinet and thus give recognition to the conservative school; and, second, that the Republican drive comes too late to be effective.

The Republican leadership has been playing a waiting game, hoping to draw the enemy's fire and then turn its barrage on fixed positions such as have been revealed in Mr. Roosevelt's western speeches. As one high administration official expressed it, "the month of October will be so aggressive from our standpoint that the country will have no doubt about the fact that there has been a fighting campaign."

Nobody seems to indicate exactly how all these speeches are going to percolate down far enough to affect the millions of voters who have already made up their minds. The Republicans concede they have a hard fight but they point significantly to the fact that the Literary Digest polls show that Roosevelt is drawing his strength at present from Republican sources

AMERICAN NATURE'S SHOP



IN ENGLAND
IN THE EARLY DAYS,
AUCTIONS
WERE HELD
BY CANDLE.
A CANDLE, ONE INCH
IN LENGTH, BURNED
DURING THE SALE,
AND THE LAST TO BID
BEFORE THE LIGHT
WENT OUT
WAS DECLARED
THE PURCHASER.

The WATER
AT THE BOTTOM OF ALL DEEP LAKES IN
TEMPERATE REGIONS REMAINS PERMANENTLY
AT 4 DEGREES CENTIGRADE. (39 1/2 FAHRENHEIT)

THE TWO
GREAT CLAWS
THE LOBSTER ARE MADE
FOR DIFFERENT PURPOSES. ONE
IS A CRUSHING CLAW AND THE
OTHER IS USED FOR CUTTING.
BUT WHEN A CLAW IS
LOST THROUGH ACCIDENT,
THE NEW ONE THAT REPLACES IT MAY BE OF THE OPPOSITE TYPE.

PURE WATER is densest and heaviest at 4 degrees centigrade. As a result of this peculiarity of water, deep lakes do not freeze solid. In cold weather, after the entire amount of water in a lake has been cooled to 4 degrees, any further loss of heat will leave a lighter, colder layer of water floating on the rest. After this freezes, the bottom layers cool so slowly that warm weather comes again before the bottom layers are cooled. The surface water will be the warmest layer in summer and the coldest in winter.

NEXT: How does the albatross follow a ship without flapping its wings?

and that Hoover is winning some Democratic votes as an offset.

The Republican theory is that Hoover can win back Republican votes faster than he can make converts of Democrats. The speech of acceptance was a powerful vote getter but its forces has been spent and hence the Hoover advisers are pinning their faith now on more speeches like the acceptance address.

"We're always just a month or so late with our proposals," said one Republican critic, "and I am hoping our campaign isn't being a month too late."

If the tide is turned in October as a result of President Hoover's personal appeals, it will be a miracle in American politics. But it will be conceded that in a depression all sorts of things are pos-

Start Work Now In Your Garden For Next Year

It is Time to Divide and Transplant Perennial Plants

BY W. A. TAYLOR
Chief, Bureau of Plant Industry, U. S. Department of Agriculture

In early fall and until the first hard frost the enthusiastic gardener finds that next year's garden is competing with this year's. Some perennials and even more varieties of annuals are at their brightest and best in the fall and provide a riot of cheerful color. But regardless of beauty, it is coming time to get started with fall work in the garden in preparation for next year.

It is time to divide and transplant perennial plants, to get biennials and perennial seedlings out of nursery rows and into permanent places in the garden, and the time for fall planting is approaching. It is better to sacrifice part of the fall bloom than to delay the fall overhauling.

Most gardeners find that it pays to give their perennial beds or borders a thorough overhauling every third or fourth year. The general overhauling offers opportunity to improve the garden plan, to correct defects in drainage of the bed, and to spade deeply and thoroughly.

Fertilizing Time

This is the time to apply most of the fertilizer that will be required for three or four years, working it deep into the subsoil so that roots of the perennials will run deep in search of plant food and will find also a plentiful supply of water retained in the manure or compost that has been mixed with the soil a foot to three feet below the surface.

As a practical matter it is best to do a third or quarter of the overhauling each year. This enables the gardener to plan ahead, and to

plant his late flowering annuals each year in the parts of his beds that will not be overhauled in the fall bloom than it is to divide and not be delayed until zinnias, asters, marigolds, petunias, nasturtiums, and the like have finished flowering. It is better to sacrifice some implant valuable perennials so late fall. The general overhauling should that they are likely to suffer from wanton rigors before they have time to recover from division, extend their roots, and establish themselves.

Some perennials may be divided best in spring, some in the fall, and with some either spring or fall division is satisfactory. The hardy chrysanthemums, most of the perennial aster varieties, and late flowering varieties of golden glow and the cone flowers, for example, are best divided in spring, for they have ample time to make new growth before their flowering season.

Some of the commoner perennials, which are best divided in the early autumn to give time for rooting and growth before cold weather sets in, are hardy pinks and dianthus varieties, the cornflowers, pentstemons, hardy ferns, delphiniums, iris, peonies, spring flowering phloxes, bleeding heart, alum root and other spring flowering perennials.

Peonies usually do best with infrequent division and should be placed where they may be left undisturbed for from seven to 10 years. Whether divided in fall or spring they are not likely to bloom abundantly the first year after division. Hollyhocks, perennial lupines, oriental poppies, and to a lesser degree the delphiniums do not move well and except with the choicer varieties it is usually more practical to grow new plants from seed, discarding old plants when the bed is overhauled and replacing them with new.

An electrical device has been perfected to measure the acidity of fruit juices and determine their freshness in this manner. The oldest known manuscript of the Bible is in the Vatican at Rome.

Clark to Address Scout Conference

Fifteen Valley Council Leaders to Participate In Sheboygan Meet

The Servant of Death
Probably, if you are a follower of fictional or real-life murder stories, you have at one time or another told yourself that it really ought not to be so hard for a smart man to commit a murder in a way that would absolutely defy detection. (And, if you're like me, you've probably got one or two acquaintances you wouldn't mind putting on the receiving end of such a plot.)

This idea is developed in "The Servant of Death," by J. H. Watson, and while the novel is marred by atrocious writing, it is rather interesting in the way the central character puts his idea into effect.

He is a social light who has fallen on evil days, due partly to the activities of a certain lawyer, and he decides to get revenge by murdering the lawyer—and by doing

A BOOK A DAY

BY BRUCE CATTON

The Servant of Death
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Lutherans Put Liturgy In Madagascar Language

New York—Lutheran missionaries in Madagascar will receive by Christmas copies of a book in which the native language has been fitted to the music of the Lutheran liturgy. It is called "Ny Liturgy Manao aman" by Frangana Loferana Malagasy," or the Liturgical Service as used by the Lutheran Church of Madagascar.

Most of the work on the book, which was begun in 1915, has been done by Dr. F. Melius Christensen and the Rev. R. C. Cartford, of Northfield, Minn., both missionaries.

it in such a way that he cannot possibly be caught.

After laying careful plans, he bumps the lawyer off. All goes well, he isn't even suspected. But pretty soon he begins to get jittery; presently he feels that he must commit a second murder to escape detection. He devotes equal care to this job and gets away with it, too; but at last he is laid by the heels because, in his striving for protection, he drops a clew that the dumbest tyro wouldn't have left.

"I Know that it's Good"

Lydia E. Pinkham's Vegetable Compound did wonders for me after an operation six years ago. I am taking it again now because I am rundown and I know that it is good for many ailments of women."—MRS. JEANETTE PERRY, 1714 West 2nd St., Sioux City, Iowa.

This medicine is backed by over fifty years of success. Thousands of women depend upon it to give them more strength. Sold by all druggists. Liquid or tablet form. Get a bottle today.

Lydia E. Pinkham's Vegetable Compound

Made in Milwaukee

Parent Plant
Detroit, Mich.
A Delaware
Corporation

FORD V-8 A WISCONSIN PRODUCT

Wisconsin Products Week

OUR HEARTY CONGRATULATIONS TO
WISCONSIN MICHIGAN POWER CO. AND
WISCONSIN UTILITIES ASSOCIATION

PAY ROLLS, annual	\$1,250,000
TAXES, annual	27,000
PURCHASES, annual	1,000,000
TOTAL	2,277,000
INVESTMENT, in Real Estate, Equipment, Merchandise	\$ 820,000
EMPLOYEES, average	1,000
PLANT CAPACITY, cars and trucks, annually	52,000
CARLOADS MATERIAL, received annually	3,300
CARLOADS MATERIAL, shipped annually	3,700

This is what the 292 Wisconsin Ford Dealers organizations means to our state

PAYROLLS, annual	\$ 2,962,800
TAXES, annual	258,866
INSURANCE	282,620
PURCHASES, annual	14,000,000

TOTAL	\$17,502,286
INVESTMENT, real estate, equipment, merchandise, etc.	\$11,318,492
EMPLOYEES, average	3,120
UNIT SALES, cars and trucks, annually	52,000
TOTAL ANNUAL EXPENDITURE	\$19,779,296
TOTAL INVESTMENT	\$12,138,492

We Purchase Materials from 198 Wisconsin Firms

Buy Wisconsin Products

Cut Away Chassis In Operation. New Ford V-8 of Today, Old Ford of 20 Years Ago. ALL WILL BE ON DISPLAY

at Wisconsin Michigan Power Co. Service Room

South Oneida Street
FRIDAY NIGHT and SATURDAY

Aug. Brandt Co.

— Other Ford Dealers Participating in This Showing —

VANDENBERG AUTO CO., Seymour
MANCL MOTOR CO., Black Creek
ABEL BROS., Dale
AUTO SERVICE SALES CO., Clintonville

JAEGER-DOWLING, Neenah

WM. VAN LIESHOUT, Kaukauna

OTIS GARAGE CO., Clintonville

Since volume deliveries of the new Fords began in June, Ford has accounted for 34.5 per cent of all new passenger car sales in Wisconsin, as compared with 24.8 per cent of its nearest competitor, according to Mr. Aug. Brandt of the Aug. Brandt Co. Ford sold 2,676 of the total of 7,754 cars of all makes sold in the state in June, July, and August. Ford's total commercial car and truck sales also exceeded those of any other manufacturer.

Defending Player Often Has Brilliant Chances

The opportunity for sheer brilliancy at cards is presented most frequently to him who is defending a game bid at Contract Bridge. It is true that Contract offers opportunities for brilliant bids, brilliant end-plays by Declarer, and so on, but it is the man on the defense, who does not see his partner's hand, who has the best chance to make a play that would bring a gallery to its feet, cheering wildly.

The Declarer sees both his hand and the Dummy, and therefore knows the sum total of the strength that is out against him, although he is not quite sure as to how it is divided. The man on the defense knows half of his team's strength and half of the enemy's strength, but he cannot co-ordinate his plan of attack—or rather defense—as readily as the Declarer. The defense must be based on much finer and much more subtle deductions than those of Declarer. His movements must be more daring and perfectly timed. He must be willing to take a shot in the dark, or to gamble all on one bold stroke. It is only at the start of a hand that he has the element of time in his favor, and if he ever loses it by not taking full advantage of it at that moment, it is permanently lost. On the hand given below, South was Declarer at a four-spade contract, which West doubled.

Neither side vulnerable.

Q J 9 5
4 A J 6
A 10 9 5 4
K 10 4
K Q J 10
K Q 5
K 7 3
A 8 7 6 2
9 3
9 7 4
Q J 2

West's opening lead was the heart King, which held the trick. At this point, unless West made the proper shift and led the correct card of the proper suit, his cause would be lost permanently, as he could see that after he got in with his spade King he probably was through for the day. With a set-up club suit with his own King caught in the middle staring him in the face, he could count on but one spade, one diamond and one heart trick to defeat the contract. Where was the fourth trick to come from? Diamonds looked like the only hope, but to lay down the diamond King would quite definitely locate the Queen for Declarer, and the Knave in Dummy would stop him from taking more than one trick in that suit. West at this point boldly led the low diamond away from his King-Queen. The play was perfectly timed, the psychology was correctly analyzed, and the gamble rewarded. The Declarer did have the diamond 9 and decided upon the natural play of finessing against the Ten in West's hand and finding the two major honors split. No one could possibly blame the Declarer for not reading that West had led away from the King-Queen of the suit with the Ace-Knave over him, and he made the logical play, hoping East might have to go up with a high honor on the first lead. Of course, the rest of the story is quite simple. East took the trick with the diamond 10, returned a diamond and when West got in with the King of trumps he cashed the setting trick.

The player, either Declarer or defender who can think quickly and can make an unnatural play as quickly as a natural one, will surely have a big advantage over his opponents. He will not give them an opportunity to mass their forces and he will very often catch them unawares. His most brilliant and most tricky plays will be masked under the guise of innocence and normality, and unless the opponents hold a very high opinion of his ability, they will fall into most of the traps he sets for them. However, it is far better to play slowly and come out with the right plan than to play quickly and come out with a plan which must surely be a losing one.

Be prepared to do the unusual, and, in addition, be prepared to

Flapper Fanny Says



Making your mark depends on having an aim in life.

change your plans and your line of attack at a moment's notice if your first deductions as to the mode of play on the hand turn out to be wrong. The games that you save by correct defense count just as much for you at the end of the evening as the games that you make yourself.

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QUESTIONS ANSWERED
Mr. Culbertson will be glad to answer questions on bidding and play of hands sent in by readers. Address him in care of this newspaper. ENCLOSING A THREE-CENT STAMPED SELF-ADRESSED ENVELOPE.

The STORY OF SUE

By Margery Hale

"YOU don't need to ask who my guest is," Nancy answered Sue's question as to who the luncheon guest was. "It's Arnold Page, of course."

"Then you are friends again?"

"After a fashion . . . yes." The long white fingers played with the golden tassels on the belt of the green lounging pajamas. "If two people can ever be friends after they have made rather a havoc of each other's lives. He came in one day to see my husband about a business matter. He didn't want to come. It was necessary, I was alone so he had to talk to me. We made up. He's been in once or twice. He remembered it was my birthday and sent flowers . . . so I called and asked him to come to lunch."

lavish material gifts, but nothing more.

She knew where the green eyes were looking. They were seeing a jungle far off somewhere, watching the red flame of a camp fire, catching the shadows that swayed in the velvet darkness . . . Nancy hadn't gone with Arnold Page, the young explorer and writer, because he had not asked her to, and he had not asked her to because he had thought she would be afraid of the hardships. Now he had returned years later, one leg gone, and Nancy had been married for several years.

But the fate that had brought them together before wasn't satisfied to let them go their separate ways. The old charm was working . . . the old romance was stirring . . .

Suddenly Nancy clung to Sue's hand. The knocker was falling against the outer door. The sound carried up the broad stairway.

"It's Arnold," Nancy said. "Don't let on that I hadn't invited you, first of all for lunch."

"I won't," Sue promised.

She saw nothing more than cordial friendship in the greeting which Nancy gave Arnold Page, nothing more than a guest saying the courteous thing in Page's response. But she felt something come to life in the room. Something vibrant and electric. She wondered if Nancy's husband would feel it, too.

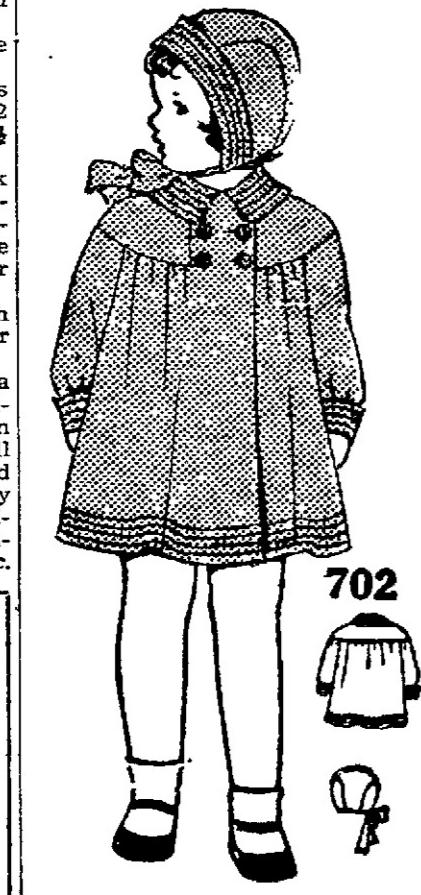
While she was thinking about it, his shadow fell across the floor and his deep voice, friendlier than she had ever heard it, although she had heard it, spoke only friendly, cordial words. His eyes were shining and eager.

Sue caught her breath. She saw what Nancy hadn't guessed. That though the marriage had built without love Clarence Becker had fallen in love with his wife.

"Nancy! I didn't know we were having guests. How delightful!" But his eyes were disappointed.

NEXT: The Becker luncheon.
(Copyright, 1932, NEA Service, Inc.)

SMALL DAUGHTER NEEDS RE-COATING



In order to build some of her airports it was necessary for Siam to organize hunting expeditions to kill off tigers from the jungle land bordering the sites before natives would do any work.

Order Blank for Margot Patterns.

MARGOT, care Appleton Post-Crescent, Appleton, Wisconsin.

Included find 15c. Please send me the patterns listed below:

Pattern No. Size Price

.....

Name

Street

City

State

Two More Women Make Good Behind Editorial Desks

BY HELEN WELSHIMER
New York—Skirts are peeping out from under publisher's desks these days.

Two more women have recently been elevated to editorial executive positions on national magazines. Miss Kathryn Dougherty is now president and publisher of Photoplay. Mrs. Patricia Reilly Foster is College Humor's new managing editor.

Both women believe that work is a fascinating game. They are in it because they like doing it better than they could possibly like doing anything else, they are sure.

"I do not think that whether a woman or a man is occupying the publisher's or editor's chair on a periodical should be discernible to the readers," Miss Dougherty says. Her eyes are blue and her cheeks are pink, and her hair, prematurely white, frames a decidedly youthful face. She resembles the glamorous heroines of the screen whose faces smile across her magazine pages.

She isn't very old. She wasn't 20 when she came to her magazine 17 years ago.

Started as Bookkeeper

She was assistant bookkeeper at first, earning a salary of \$15 week. But the bookkeeper left. James Quirk the young editor of Photoplay, also new at his job, saw possibilities in the girl who kept telling him that she ought to leave because she didn't know enough to keep such important books. He promoted her, and consulted her. When he died, not long ago, she became his successor.

Miss Dougherty believes that people should enjoy their work.

"I have remained on the job just because I have had such a good time working," she says. "During my first five years I worked 40 out of the 52 Sundays, every year. I haven't taken vacations and I seldom go away for weekends. I like my work too well."

Miss Dougherty believes that women have a constancy and love for their work which men seldom possess. But men, she asserts, have a frankness which women can't equal.

Devoted to Daughter

Miss Dougherty manages a home and family, her husband, John S. Tuomey, to whom she has been married 10 years, is a member of the board of directors of Photoplay, and its business manager. Miss Dougherty's three-year-old daughter, Joan Katherine, is the only attraction that can lure her away from her offices.

Patricia Riley Foster started her publishing career by getting a job on the Bookman in New York, when she completed a journalism course at Columbia University. She went to the Red Book next, and from there to College Humor. She is the co-author of the novel, "Big Business Girl."

The two women editors hold slightly different attitudes about their work.

Both Favor Training

Mrs. Foster locks her magazine interests in the office when she goes home. She is glad that her husband, Robert K. Foster, is a bond trader instead of a publisher so she can get away from talking shop. Miss Dougherty is glad her husband speaks the same language because it's the one she likes to talk.

And she never has any secrets to share.

"Good gracious no. A thousand times no. I can't think of a more unsuitable match nor one that is calculated to bring more misery on more people.

According to father's own account of his impeccable youth, he was always a model who was a gallant knight to his mother and kind and attentive to his little sisters, no matter what pests they were. At school he was a diligent student who took all the prizes and caused the teachers no annoyance. When he went to work he was never late, never idled, but was always the industrious apprentice.

He never even did anything foolish. He never got into debt or went on a wild party or drove Dobbin out of a walk or skylarked around with the girls or got into a scrape of any kind whatever.

And mother was equally beyond reproach in her youth. She also was a wonderful scholar and mother's little helper and she always just wanted to do what mother wanted her to do and wear the clothes mother bought for her, and she never went anywhere without a chaperon, and when the boys came to see her, she sat on one side of the room and she sat on the other and they discussed what Mr. Browning thought he meant in certain of his poems.

Now, I ask you, how is poor John, who is always tumbling from one difficulty into another, going to tell father, who never made a mistake, in his own youth, about how he has overdrawn his allowance and has got into trouble over his pranks at college or has got

are naturally acid, it is important to apply lime to the ground around the lilacs every four or five years. Lilacs often suffer badly from attacks of mildew, but this trouble can be kept in check reasonably well by dusting every ten days with powdered sulphur, or with the so-called Massey dust, which is now on sale at the seed stores under various trade names.

There then are the two little children to consider. Being a stepmother is one of the most difficult and arduous jobs on earth and the one that requires the most tact and patience and self-control, and no girl of 17 is fitted to undertake it. You are nothing but a child yourself and you wouldn't even know how to go about rearing teenagers nearly as old as yourself. So, for pity's sake and



Newest additions to the growing list of women editors of national publications . . . Both married, and both in love with their jobs as well as their husbands.

Be Confidential With Your Set Rules For Girl of College Age

BY DOROTHY DIX

Dear Miss Dix—I am a young girl in my teens and very unhappy at home. My mother and I don't get along together at all and she doesn't approve of everything I do, although I do nothing wrong. One of the things that gets my goat is that she is always setting herself up as an example, and that makes me mad through and through. She says that when she was a girl she never did anything of which her parents disapproved nor ever "sassied" them. Do you think that in the twenty-one years she lived at home she never said an unthoughtful or unkind word or disobeyed her father and mother's wishes? I don't. Any way, not for me.

BERTIE.

Answer: Well, Bertie, I am inclined to agree with you and surmise that perhaps your mother wasn't quite the pin-feathered angel when she was a girl that she represents herself to be. But when she does anything that gets my goat is that she is always setting herself up as an example, and that makes me mad through and through. She says that when she was a girl she never did anything of which her parents disapproved nor ever "sassied" them. Do you think that in the twenty-one years she lived at home she never said an unthoughtful or unkind word or disobeyed her father and mother's wishes? I don't. Any way, not for me.

DOROTHY DIX represents herself as a paragon she really doesn't mean it to be taken literally. She is merely holding an ideal up to you of what she would like you to be and also she is trying to fix a picture of mother perfection in your mind. Something for you to reverse and kow-kow before.

One of the most pathetic things in the world is the passionate desire that parents have for their children's admiration. Above everything else they long for their children to look up to them and think them little tin gods, the wist, strongest, the most wonderful people on earth. That is why father swells up and becomes oracular and dictatorial in the home circle, and the phrase "mother knows best" is always on mother's lips.

And this is why, when the children differ with their father and mother on any subject or venture and criticism of anything they do, father and mother consider them impudent and punish them because they have committed the crime of less majesty. They have questioned the infallible, and the poor parents who see their god-head slipping away from them are hurt and offended.

Personally, I think it is a great mistake for parents to put themselves upon a pedestal and hand over to their children this press-agent story of their youthful perfections because it creates a barrier between them that the young ones have not the courage even to try to surmount. It makes the parents so good that they cease to be human, and the children feel that they have nothing in common with these superior beings.

But the fate that had brought them together before wasn't satisfied to let them go their separate ways. The old charm was working . . . the old romance was stirring . . .

Suddenly Nancy clung to Sue's hand. The knocker was falling against the outer door. The sound carried up the broad stairway.

"It's Arnold," Nancy said. "Don't let on that I hadn't invited you, first of all for lunch."

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While she was thinking about it, his shadow fell across the floor and his deep voice, friendlier than she had ever heard it, although she had heard it, spoke only friendly, cordial words. His eyes were shining and eager.

Sue caught her breath. She saw what Nancy hadn't guessed. That though the marriage had built without love Clarence Becker had fallen in love with his wife.

"Nancy! I didn't know we were having guests. How delightful!" But his eyes were disappointed.

NEXT: The Becker luncheon.
(Copyright, 1932, NEA Service, Inc.)

Old Gardener

THE OLD GARDENER SAYS:

There is much talk now about the new French lilacs, and they are exceedingly charming garden subjects. Nevertheless, they are less to grow than the older kinds, and the common lilac still remains a first-class garden subject—one which will grow with but little attention and can be depended upon to flower every season. Lilacs thrive particularly well when planted in the autumn. The common colored and white forms will endure much hardship and even abuse, but the newer named varieties are more particular about the care which they get. They must have a well-drained, rich soil, and preferably one which contains lime. In sections where the soils

Use Patience to Treat Child for Sulkiness

BY ANGELO PATRI

James is a cheerful willing child so long as he is out of the house. The moment he enters the door of home his face falls. His shoulders hunch themselves and his feet hang heavily on the ends of his legs.

"What's the matter, son?" "Nothing."

"O, there must be something wrong to make you look like that. Tell me what it is and I'll help if I can."

"Nothing, I told you," and the tone is an affront.

When a child behaves like that, muster what patience you can and keep still. Meet his grrouch with silence. Ignore him as you can. Give him to understand that he is to do his usual chores and then pay him no more attention. The less you say to him, the less you appear to notice his sullen face and his thumping footsteps, the sooner he will relax and come to himself.

Sulky children are tired children, sometimes. They have worked hard in school and on the playground to make themselves pleasing, to be one of the important people present. Children find this a great strain and when they get home they shed the cloak of brightness and good manners for the home-spun garment of grrouch and grunts. Let them be. Let them be severely and they will come to their senses the sooner.

Some children are sulky because their wills have been crossed. If I can't have my way I won't play.

They are to be shown that they will get their full share of the ways of the family and no more. It is a mistake to make the whole family bow to the aggressive greedy one.

Antigo Man Is Fatally Hurt By Automobile

Elizabeth Boehm, Neenah, Reported to Have Been Driver

Antigo — Elizabeth Boehm and Ben J. Schneider, both of Neenah, were held here today following the death yesterday of Amos Wagner, member of a county highway crew, who was struck by a car driven by Miss Boehm.

Neenah—Amos Wagner, an employee of the Antigo highway commission, working on Highway 26 a short distance south of Antigo was fatally injured about 3 o'clock Wednesday afternoon, when he was struck by a car said to have been driven by Elizabeth Boehm of Neenah. Wagner died on the way to the Antigo hospital, according to reports received here, and an inquest was to have been conducted at 2 o'clock Thursday afternoon.

In a report to Chief James Lyman of the Menasha police force it was said that the woman was accompanied by a man who gave his name as Harold Jones, 227 First-st., Menasha, but police found that no such address existed here.

In a later report from Antigo to Chief Charles Watts of the Neenah police department, it was said that the man was E. J. Schneider of Neenah.

Many at Church Night Program

Event Is One of Series Celebrating Twentieth Anniversary

Neenah—A Fox River Valley Lutheran church night program, one of a series of events in celebration of the twentieth anniversary of St. Paul's English Evangelical Lutheran church of Neenah, was well attended here Wednesday evening.

Edward Christoph was program chairman and extended a welcome to the visiting pastors and congregations. Greetings were extended by the Rev. E. J. Stecker of Fond du Lac; the Rev. E. R. Wicklund, Oshkosh; the Rev. D. E. Bosserman of Appleton and the Rev. Alfred Jensen of Our Savior's Lutheran church of Neenah.

The response was given by the Rev. C. E. Fritz, pastor of St. Paul's church, and Mrs. Stearns of the St. John parish at Oshkosh related a number of her experiences as the first organist of St. Paul's church. Special music was presented, and a social program, in the church basement, completed the program.

Activities will be suspended until Friday evening when the anniversary banquet in S. A. Cook armory will climax the celebration. An attendance of more than 500 is expected.

Hauser Bowls High Series; Gets 555

Neenah—Cornelia Hauser starred in Ladies league play on Neenah alleys Wednesday evening when she rolled high single game with 213 and high series with 555. Whitten was second with 535; Luebbeck third with 531 while Hanson took second high individual game with 201. The Burts Candies scored high team game and series with 881, 823 and 817 for a total of 2,521. The Burts Candies and Kramer Meats were pace setters with three game victories over the Neenah Alleys and E. E. Jandrey squads respectively. The Shells "400" won a pair from the Rose Leafs and the Pirates took the odd game from the Kimberly Clark quint.

Scores:
Kramer Meats 700 726 781
E. E. Jandrey 689 705 665
Burts Candies 881 823 817
Neenah Alleys 782 800 745
Shell Oil 731 716 728
Rose Leaf Beauty Sp' 697 760 783
Pirates 813 774 842
Kimberly Clark 789 805 730

Standings:
Shell Oil 7 2
Burts Candies 7 2
Neenah Alleys 6 3
Pirates 6 3
Kramer Meats 5 4
Rose Leaf Beauty 3 6
Kimberly Clark 2 7
E. E. Jandrey 0 9

Checker Exhibition At Neenah Tomorrow

Neenah—H. W. Brooks of Green Lake, president of the Wisconsin Checker association will meet all comers in a checker exhibition on the third floor of the city hall here at 7 o'clock Friday evening, playing all challengers simultaneously. Challengers have been requested to bring their own boards and checkers. Brooks' appearance here is sponsored by the Neenah Checker club.

Neenah Youth Is on Stout Football Team

Neenah—Heinrich Gaertner, member of the 1931 class at the high school, is a likely candidate for center on the Stout Institute football team at Menomonie, Wis., according to reports from that school. Gaertner won his football letter in his freshman year at Stout. His team played the Mankato, Minn., team Saturday to a scoreless tie.

Tennis Tourney for High School Students

Neenah—Continued fine weather has encouraged a class tennis tournament among students in the four grades at the high school. Each class was allowed five players and the first rounds were played Wednesday evening under direction of Coach Ivan Williams.

Might Use Cemetery Well as Source of Water for Neenah

Neenah—The advisability of utilizing the new Oak Hill cemetery well as a source of water supply for the city will be discussed at a meeting of the water commission at the city offices at 7 o'clock Thursday evening.

The well was drilled recently and tests to determine its capacity over a long period were considered satisfactory. The water from the new well is softer than the city water now in use.

Begin Work Soon On Neenah Church

F. G. Bartel Construction Co. Ready to Start Operations

Neenah—The F. G. Bartel Construction company of St. Cloud, Minn., awarded the general construction contract for the new St. Margaret Mary Catholic church here, was expected to begin preparations today for actual operations.

The identity of successful bidders was revealed today by church authorities but contact figures were not announced.

The Arft-Killonen Electric company of Appleton has been awarded the contract for electric wiring in the new building and H. J. Lenz of Neenah was the successful bidder for the plumbing and heating job.

The Rev. Joseph Van Bogart is pastor of the new St. Margaret Mary parish and parish activities in preparation for construction of the church have been under way for several weeks. The structure will be erected on Division-st.

Neenah Society

Neenah—A reception for the Rev. E. J. Matthews and family will be held in Wesley hall of the First Methodist church Friday evening.

The Rev. Matthews recently was named pastor of the Methodist church in Neenah, succeeding the Rev. T. J. Reykdal who was transferred to Wisconsin Rapids.

The first of a series of weekly dancing parties was conducted in S. A. Cook armory Wednesday evening. A twin city orchestra furnished the music.

Circle No. 2 of the Whiting Memorial Baptist church was to meet at the home of Mrs. Leslie Johnson at 2 o'clock Thursday afternoon.

The fifth wedding anniversary of Mr. and Mrs. Thad Sherrin, was celebrated at a surprise party given by the Neenah Women's Relief corps at the Sherrin home on E. N. Water-st. Wednesday afternoon. A fernery filled with flowers was presented to Mr. and Mrs. Sherrin and a lunch, including a large wedding cake, was served.

The Y. W. C. A. will entertain at the first of a series of "Friendship Sessions" Monday afternoon from 3 to 5 o'clock at the "Y". All members and friends of the association are invited and employed women and girls have been given a special invitation to attend after business hours. The membership and education committees are in charge of the affair.

Miss Emma Draheim, Franklin-ave, entertained at a shower in the Memorial building in Menasha Tuesday evening in honor of Miss Sophia Stanak, Menasha, whose marriage to John Schieber of Appleton will take place in October. Cards were played, a mock wedding was conducted, and lunch was served.

Masons Wind Up Plans For State Convention

Neenah—Final arrangements

are being made for the twenty-first annual state convention at Theda Clark hospital Thursday morning.

Mrs. Albert Little of Black Creek underwent a major operation at Theda Clark hospital today.

A son was born to Mr. and Mrs. Norman Mills of Greenville at Theda Clark hospital Thursday morning.

Mayor George Sande of Neenah will extend an official welcome to the delegates at the opening session at 9 o'clock Monday morning.

About 200 delegates from the various cities and districts are expected to attend.

Sessions will begin at 9 o'clock each morning with Thomas Jones, Milwaukee, state president, in the chair. Other state officers who are expected to attend are Robert Tooker, LaCrosse, vice-president; and Harry W. Kline, Milwaukee, secretary.

No Expenditures for Several Candidates

Neenah—Expense accounts filed in the office of G. W. Manuel, Winnebago-co clerk, by George C. Finch and Joseph Smick, Democratic candidates for nomination as assemblyman in the first district, by J. R. Coyle, democratic candidate for county treasurer; and by Louis Woockner, democratic candidate for coroner, reveal that no expenditure was made in the pre-primary campaigns.

It was erroneously stated that they had filed no reports. Final accounts have not been filed by Joseph G. Masterson, Ruben Schipper, and John Herziger, Democratic candidates for sheriff, and Jasper D. Owen, Democratic candidate for coroner, a report from the county clerk's office indicated Wednesday.

KIWANIS CLUB MEETS

Neenah—The Neenah Kiwanis club held its regular weekly luncheon session at the Valley Inn Wednesday noon. Col. Frank J. Schneller, who was to speak on the observance of Wisconsin Products week was unable to appear. Col. Schneller, one of the speakers named by the Wisconsin chamber of commerce, spoke over the radio early this week.

\$76 Is Deposited by Neenah Grade Pupils

Neenah—The weekly banking at the four grade schools, in which 442 pupils made deposits, netted \$76.02. This is one of the smallest amounts so far deposited. At Lincoln school, 92 pupils deposited \$28.12; at Roosevelt school, 152 pupils deposited \$25.29; at McKinley school, 107 pupils deposited a total of \$9.40; and at Washington school, 90 pupils deposited a total of \$14.11.

CAR, TRUCK CRASH

Menasha—A car driven by Gerald Hecker, Menasha, was damaged when it collided with the rear end of a Kroehler manufacturing company truck, driven by M. A. McCormick, Naperville, Ill., at the Main-st traffic lights shortly before 10 o'clock Wednesday evening. Hecker escaped injury.

COMMITTEE TO MEET

Menasha—The Menasha fire department was called to extinguish a grass fire at 759 Plank-rd at 9:30 Thursday morning. The blaze caused no damage.

FUTT OUT GRASS FIRE

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Do Not Be Misled by QUESTIONABLE ADVERTISING

The Advertising Club of Appleton, Inc.

School Classes Select Officers

Willard Kettering Elected President of Senior Group

Neenah—Willard Kettering was elected president of the senior class at the high school Wednesday during a general election held by the four classes. Other seniors elected were Robert Kuehl, vice-president; Carlton Krause, secretary and treasurer; Jack Dengle, member of athletic association.

Phillip Whitpan was elected president of the juniors. Other elected by this class were Russel Menning, vice-president; Charles Zemlock, secretary and treasurer; and Constance Wrase, member of athletic association.

The freshmen elected Janet Bahr president; Alice Aylward, vice-president; Ruth Fosterling, secretary and treasurer, and Marion Block, member of athletic association.

The sophomore officers elected were William Kuehl, president; Howard Angermeyer, secretary and treasurer, and Edward Krause, member of athletic association.

The election this year was conducted on a similar plan to that of the city, county and state, with registration, naming of nominees, and voting by ballot. This was to teach the pupils methods of voting.

Post graduates attending school this year have organized an association with Donald Smith, president; Charles Hanson, vice-president; Donald Raiche, secretary and treasurer; and Miss Helen Thompson, faculty advisor.

Duck Hunting Laws Explained by Warden

Menasha—With the hunting season only a few days away and a number of the local nimrods still in doubt about the bag limit regulations, the Twin City Sportsmen's club has called on Albert F. Dunham, conservation warden, to explain the bag limit ruling.

Dunham said that the limit of 15 remains the same excepting that the bag shall contain not more than 10 canvas backs, red heads, blue wings, green wings, cinnamon teal, godwals or shovellers. These are in need of greater protection than the common ducks such as mallards and pin tails. If any hunter can shoot ten of the first group mentioned he can fill his bag limit of 15 with mallards or the common types of ducks or hens which come under the 15 per day classification.

Warden Dunham also explained that the season in Winnebago-co opens Oct. 1 and closes Nov. 30, with no shooting on Wednesday's. Rabbit season opens here Oct. 1 and there is no open season here in the country for pheasants. The bag limit for partridge and prairie chicken is four of each per day.

The Draheim Sports moved into a tie for first by lacing the Whiting Papers for three in a row while the Weiske Grocers won a pair from the Kramer Meats; the Badger Paints took three from the Twin City Cleaners; the Kolbe Florals won the odd game from the Twin City Bottling quint and Kruegers won a pair from the Wicker Lumber Co.

Scores:

Kramer Meats	822	1000	863
Weiske Grocery	935	955	903
Badger Paints	866	878	930
Twin City Cleaners	838	822	895
Wicker Lumber Co	1000	924	970

Kruegers

Draheim Sports	869	924	938
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Whiting Paper Co.

788	918	933
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Kolbe Florals

964	864	839
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Twin City Bottling

927	853	850
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Standings:

W. L.		
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Weiske Grocery	9	3
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Draheim	9	3
---------------	---	---

Kruegers	6	6
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Badger Paints	6	6
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Twin City Cleaners	5	7
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Wicker Lumber	5	7
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Kolbe Florals	4	6
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Twin City Bottling	3	9
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Menasha Society

Menasha—Miss Alvina Hahn, daughter of Mr. and Mrs. Henry Hahn, 524 Third-st., and Francis Gruber, Jr., son of Francis Gruber, Sr., were married at St. Mary's church at 7 o'clock Wednesday morning.

The Rev. John Hummel performed the ceremony and attendants were Miss Marie Gruber, sister of the groom, and Sylvester Hahn, brother of the bride. The ceremony was followed by dinner and reception at the home of the bride's parents.

Following a wedding trip Mr. and Mrs. Gruber will reside in Menasha. Mr. and Mrs. Sylvester Hahn of Rockford, Ill., and Mrs. Harry Behrens and daughter, Shirley Ann, of Sheboygan were among the out-of-town guests.

Winnebago chapter of DeMolay met in the Masonic lodge rooms here Wednesday evening. Regular activities were continued.

A card party was sponsored by Christian Mothers of St. Mary's parish in St. Mary school Wednesday afternoon and evening. Refreshments were served.

Sewing Circle of Trinity Lutheran church met in the church parlors Thursday afternoon. Mrs. Ferdinand Arndt, Mrs. Ernest Sternhagen, and Mrs. Anton Smith were to be hostesses.

St. Agnes and St. Thomas Guilds of St. Thomas Episcopal church met in the parish house Wednesday afternoon. Routine work was done at both meetings.

Women's Benefit association will entertain at a public card party in Knights of Columbus lodge rooms Monday evening. Refreshments will be served.

The Double Four club was entertained at the home of Mrs. George Powers Wednesday evening. Honors at cards went to Mrs. M. Handler, Mrs. Powers, and Mrs. T. Pon-tow.

Committee

See U.S. Gang Invasion for Cuba Slayings

Murder of Senate Chief Resembles American Criminal Methods

Havana — (AP) — The possibility that American gang gunmen may have invaded Cuba with ultra-modern methods of slaughter was being investigated by police today in their effort to clear up the slaying of five political leaders here Tuesday.

They based their theory on the fact that Dr. Clemente Vazquez Bello, president of the Cuban senate, friend of President Machado and prospective presidential candidate for next year, was slain very much in the American gang manner.

He was cut down by a rain of bullets from an automobile which roared up beside the car in which he was riding. The fact that more than a dozen bullets penetrated his body and more than sixty struck the side of his car indicated, police said, that a sub-machine gun was used by the killers.

The marks of modernistic crime were not so clear in the slaying of the other four opposition leaders, however. Three brothers, Gonzalo, Leopoldo, and Guillermo Preve de Andrade were slain with in their respective residences by a gang which rushed into the house, shot them down, and rushed out again. Miguel Angel Aguirre, the fourth oppositionist slain, was shot down when he went to the door of his home to meet the killers.

Frustrated New Plot

A second plot, which police said might have resulted in wholesale deaths of the family and friends of Dr. Vazquez Bello, as well as high government officials, was uncovered by police yesterday in the discovery of a huge dynamite bomb planted in Colon cemetery near the spot where it was originally reported Dr. Vazquez Bello would be buried.

All the employees of the cemetery, numbering nine or ten, were arrested and held for investigation. Explosives experts today uncovered 23 separate mines containing more than 300 pounds of dynamite, all controlled by an electrical switch eight blocks away in a Chinese cemetery. There was enough explosive to have blown the whole funeral cortege to death, the experts said.

It was pointed out that the most prominent figures in Cuban political life and many government leaders would have been gathered around the spot at the funeral. There also was evidence the mines had been laid for some time and this gave rise to a theory that the killing of Dr. Vazquez Bello was part of a plot to wipe out most of the government leaders with one blow.

Squads of police made a systematic search of houses in the suburb of Miramar when it was reported a number of participants in the slayings were hidden there.

All public assemblies, including a play-by-play presentation of the baseball world's series in New York, were suspended yesterday in honor of Dr. Vazquez Bello. A seven-coach military train left with the body for the family home at Santa Clara, where the funeral will be held.

Your friends will enjoy Carey's Buttered Bar Be Que Sandwiches. We deliver. Call 453.

Fish Fry every Friday night. Hamacheck's, Kimberly.



Can Europe Come Back?

This is the eleventh of a series of articles on the possibilities of economic recovery in Europe written by H. R. Knickerbocker, noted newspaper writer and investigator, who visited all the countries of Europe in the preparation of the series. The twelfth article will appear on Friday.

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CONTINUED FROM PAGE 1

nations are removed. Today the nations are treading a path of folly. "By raising tariff barriers and imposing measures which hinder the free circulation of persons, commodities and capital they are bleeding world economy."

"Obviously if Italy is again to be able to buy abroad the quantities she bought in 1929, it is necessary that the other countries should be able to buy from us as much as they did in 1929. For us to achieve a return to prosperity, it is necessary for other countries to become prosperous again. Only in this way can their citizens come again to Italy as tourists, and only in this way will Italian citizens living abroad be able to send back remittances which together with freights and other active items would help restore our balance of payments which today requires of us a strenuous effort to keep it balanced."

Realizes Mutual Dependence

"My country therefore is interested directly in the economic re-birth of Europe and other countries because our prosperity is partly a function of the prosperity of other countries, both in this and other continents. Today no country can get along without the others. Their markets are too interdependent."

"But many nations are under the dominion of groups of special interests. If these special interests are successful in preventing their Governments from carrying out the conditions necessary for recovery, it is possible that some of them may proceed to attempt to erect economically self-sufficient national systems. Any such absurd autarchy would inevitably reduce the volume of business and this inevitably would lead to increasing misery throughout the world."

This emphatic stand of Mussolini's against autocracy is of extraordinary significance at this moment when the leader of the left wing of the National Socialist Party in Germany, Gregor Strasser, has just come out with a detailed and infinite plan for cutting Germany off from the rest of the world and making the Reich an economically self-sufficient entity. Adolf Hitler keeps a bust of Mussolini next his desk; his German Fascists hunt the Jews and plan to save Germany by cutting her off from the world. Mussolini gives Jews commanding posts in government, decry national economic isolation and calls the restoration of international trade the first step toward recovery. Hitler has had ten years in the opposition. Mussolini has had ten years in power.

"You have expressed the opinion that this crisis is different from previous crises," I said. "What are the differences?" Are they enough to make it likely that this crisis has a different development and a different end from previous crises, all of which have been overcome and have been precursors of renewed periods of prosperity?"

"The present crisis," answered Mussolini, "is doubtless the largest in dimensions and in the number of people, the amount of production, credit and consumption involved, but in relation to the mass of existing economic activity, the wealth of the nations involved, the volume of business currently done, the mass of credit and of money, the present crisis is probably smaller than pre-

sumption. Production per capita is today about 20 per cent under 1913. "But Italy, as you rightly remark, is not suffering as much from the crisis as many other countries, and the reason is not mysterious. Above everything else it is important that the restoration of moral and material order and of the principles of discipline and hierarchy have given a new soul to the Italian people, who accept with a deeply Fascist-national understanding the sacrifices necessary to combat the depression."

"The principle of co-operation instead of class struggle, the harmony of interests instead of the selfish struggle among competitors have permitted my Government to carry out various measures that have been effective in bringing relief to all classes. Thus it has been necessary to reduce wages, but not to the degree that would have been necessary if workers and employers had been left in a state of absolute liberty. Thus there has also been a reduction in salaries and of incomes from certain classes of investments, from real estate, for example."

"In Italy the employers have accepted their limitations and shouldered burdens that favor labor. The employers loyalty observe labor contracts and by reducing their expenses to a minimum and improving their efficiency of production they have managed to keep more of their concern going than perhaps is true in other countries. The Government has contributed to lightening the crisis by many measures, but specifically by our program of public works and land re-

covery."

"We could not, of course, avoid completely the effects of depression when some of the causes have a world-wide character. We endure the effects of the crisis with national discipline and this is enough to enable us to hold on while awaiting the return of prosperity. We shall attain that goal with a spirit tempered by a very terrible experience. We shall attain it in perfect order, proud of having contributed to keep disorder and anarchy from the European world."

Acting In Public Interest

It is evident that you do not agree that the economic processes in the capitalist system are entirely automatic but that they can be controlled. But do you not think," I asked, "that the chief criticism to be leveled at private capitalism is that it is unplanned? Do you think it possible to retain the principle of private initiative in a system of planned national economy?"

"In my country the monetary unit is stable and unshakable and law is rigorously applied. Because I believed it necessary to keep up a few businesses which are over-indebted, I provided a system of state assistance to enable them to meet their interest payments. In this manner I helped retain confidence in the accumulation of savings.

"But it is, above all, necessary that the various states should possess the strength to oppose the monopolistic claims of groups of special interests. These groups, by destroying competition, dominate states as they please. They feel themselves safeguarded by the system of incorporation in anonymous enterprises. Now the states are finding that either they will dominate the trusts or they will be dominated by them, and if the states are dominated by the trusts the result will be general impoverishment."

Dip Greater Than In Past

"Now to show how this crisis has differed from previous ones I may cite the fact that during the crisis of 1890 and 1907 the volume of business fell about 7 per cent. Today it has fallen about 30 per cent. The creditor countries, to save their industries from this emergency, raised and multiplied their tariffs. They then made the situation more insupportable by the quota system, without reflecting that these measures made it impossible for debtor countries to pay the creditors. Hence came the progressive strangulation of economic life."

"The present crisis is a crisis of non-confidence and of undercon-

fidence. Production per capita is today about 20 per cent under 1913. "But Italy, as you rightly remark, is not suffering as much from the crisis as many other countries, and the reason is not mysterious. Above everything else it is important that the restoration of moral and material order and of the principles of discipline and hierarchy have given a new soul to the Italian people, who accept with a deeply Fascist-national understanding the sacrifices necessary to combat the depression."

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those plans proffered by Socialists and by monopolistic groups to hinder the currency and prices and determine production to the disadvantage of the consumers."

Outlines Needed Steps

"What steps in the international field do you consider necessary to help recovery?" I asked.

"At a time when people are suffering and hoping for serious collective action every international conference has ended in new illusions. The people can no longer wait. The re-establishment of a political atmosphere of confidence, the cancellation of political debts, the reduction of customs barriers, together with the re-establishment of freedom of circulation for men and capital—these are the most urgent steps to be taken."

"My Government has sustained these theses in every international conference and is tired of repeating them. In the practical field I have acted in the matter of tariffs and quotas for legitimate defense. The degree of tariff reduction must be arrived at by common consent. One can only proceed by degrees as otherwise the remedy would be worse than the evil."

"But so long as the various Governments remain dominated by monopolistic and plutocratic groups who support a policy of nationalistic egotism intended for their exclusive advantage, the realization of the necessary international measures will be difficult."

Pittsburgh, Pa.—Constable M. J. McCann, of the 15th ward, vows he'll never stop his auto to aid a fair motorist in distress. He recently stopped for a woman driver who seemed to be having trouble. When he did three men stepped

from behind her car and robbed the officer of his revolver, black jack and \$8.

Theodore Roosevelt, at 43, was the youngest man to ever be president of the United States.

Leon Janney—
popular young
screen star



Sodality to Present Play Within Month

Rehearsals for "Crooks for A Month" Already Under Way

Kaukauna — Rehearsals for "Crooks for A Month," a three-act farce by George F. Mountford, are well underway with the Rev. Gerald Iik of St. Mary's Catholic church in charge. The comedy will be presented during the last week in October under auspices of St. Therese Sodality of St. Mary's church. A cast of nine characters is taking part in the rehearsals, which are held each Monday, Tuesday, Thursday, and Friday evenings.

The plot is centered about three college students who are attempting to raise some money. The youths open a fortune telling establishment and name it "The Temple of Occult." One of the youths plays the part of a Hindu mystic known as Ranjish. Money pours into the coffers of the trio until their lady loves drop in to have their fortunes told. The father of one of the girls comes to the place seeking his daughter and has his fortune told by the fake mystic. Police raid the establishment later, but the youths are saved from prosecution by the father, who had his fortune outlined. Some advice by the mystic proves favorable, and this saves the youths.

Included in the cast are the following people: Cy Berg as James Bentwood, the father; Clarence Wolf, as Fosdick, a salesman in the Bentwood office; Winfield Bentwood, John McMahon; Doris Bentwood, Margaret Kiffe; Mrs. Bentwood, Louis Heinz; Jack Yorke, Leroy Schuh; Marty Copping, Clayton Kiffe; Eunice Cassels, Helen Nytas; and Hilda Field, Carol Nagan.

Social Items

Kaukauna — The Sunshine club met at the home of Mrs. John Leick on Fourth-st Wednesday afternoon. Cards were played and prizes were won by Mrs. Joseph Vanenhoen and Mrs. Henry Keyzer. The next meeting will be at the home of Mrs. Fred Mayer.

Mrs. Florian Mocco entertained the Monday Night club at her home on Depot-st Wednesday evening. The meeting date will be changed to Monday night for the next meeting. Card prizes were won by Miss May LaPoint and Mrs. Ed Derricks. The next meeting will be held at the home of Mrs. Otto Busse.

Ladies' Aid society of the First Congregational church met at the home of Mrs. John Koehne on Second-st Wednesday afternoon. Plans were completed for a rummage sale on Saturday, Oct. 8. Mrs. George Fulton and Mrs. Emma Look have been named joint chairmen for the sale.

Club No. 21 of St. Mary's ladies will hold a public card party in the church annex this evening. Prizes will be awarded in bridge, five hundred, and schafkopf.

St. Mary's Altar society will hold a card party in the church annex Thursday afternoon. Prizes will be offered.

Club No. 2 of St. Mary's ladies will hold a public card party at the church annex this evening. Prizes will be awarded for bridge, five hundred, and schafkopf, and chicken "booyah" will be served.

Two Motorists Fined In Justice Courts

Kaukauna — Two motorists were fined in justice courts here Wednesday morning for traffic offenses committed Tuesday. H. Cohen, Green Bay, was fined \$10 and costs by Justice N. Schwin for operating a truck with an improper license. The arrest was made Tuesday by Harold Engerson, motorcycle officer.

William Stacker, Jr., Neenah, was fined \$1 and costs for improper parking by Officer Johns. Stacker was fined in Justice T. Seggink's court.

Darling and Kubitz Grid Game Officials

Kaukauna — Officials of the high school have announced that "Boob" Darling of the Green Bay Packers, and F. Kubitz of Manitowoc will officiate at the Kaukauna-Sturgeon Bay football game here Saturday afternoon. Both Darling and Kubitz are known to followers of the high school team, having officiated at several games last year.

Cut in Valves in City Water System

Kaukauna — Workmen of the electrical department are cutting in two valves of the city water system, according to Herbert F. Weckwerth, superintendent of the Kaukauna utilities. One of the valves is being installed at the city reservoir on Taylor-st while the other is being placed near the pumphouse on the Island. The work will be completed in several days.

Women Bowlers to Reorganize League

Kaukauna — Reorganization of the Ladies' bowling league will take place at Hilgenberg alleys Thursday evening. Teams will be selected and a new league will be organized. The schedule for the season will be mapped out. Ladies interested in bowling with any of the league teams should be at the alleys on Wisconsin-ave at 7:30 Thursday evening.

For Sale, 2 box seat tickets for 3 World Series Games at Wrigley's. Phone Monroe 972.

Newspaper ARCHIVE

Students End Magazine Contest This Evening

Kaukauna — The magazine subscription selling contest at the high school will close this afternoon, according to Olin G. Dryer, principal. Wednesday the group of students known as the "Sombreros" forged ahead of the "High Hats" with an addition of 13 subscriptions. The sombrero group has sold 73 subscriptions to magazines, while the high hat group has sold 66. The contest is being conducted by school officials to raise money for football equipment.

Magazine subscriptions being sold are for the Crowell Publishing Co. Nick Engler of the Crowell Co. opened the contest here last week. Students who participate in the contest will receive prizes beside the money paid to the school to be used for football equipment. According to Mr. Dryer, the contest is as successful as last year. A new method of conducting the sale was attempted this year. Teachers of the first period classes were placed in charge of the students' sales in their classes. The sale is expected to raise about \$150 for equipment.

Kaukauna Veterans to Attend Council Meet

Kaukauna — Four members of Kaukauna Post No. 41, American Legion, will attend a meeting of the Outagamie-co Legion council at the John E. Hantschel cottage on Lake Winnebago Thursday evening. Those who will attend are Louis Wilpot, Dale Andrews, Ed Haas, and Arthur Schmalz. The members will discuss the recent state and national Legion conventions and plans for membership campaigns to be conducted by the various posts.

Scouts Finish Plans To Erect Totem Pole

Kaukauna — Scouts of the Silver Fox patrol of Troop 27 have completed plans for construction of a totem pole, while scouts of the Pine Tree patrol will start beadwork and scouts of the Flying Eagle patrol will build a knot board, according to H. H. Grieschar, scoutmaster. Richard Danner was awarded a merit badge in athletics. The troop will hold its next meeting Monday evening.

Postpone Programs Of Swimming Clubs

Kaukauna — Activities of the two swimming clubs at the municipal pool have been postponed until next month, according to Leo Spindler, pool attendant. There are nearly 200 swimmers registered with the clubs. After several weeks of activity the members of the groups will be entered into class races for city championships.

Rotarians Listen To Baseball Game

Kaukauna — Because of the world series baseball game at New York Wednesday afternoon, there was no program for Kaukauna Rotarians at their weekly meeting in Hotel Kaukauna. A radio was installed by a local dealer and following the 12:30 luncheon the Rotarians listened to the game.

ATTENDS CONVENTION

Kaukauna — George Greenwood is in Milwaukee where he is attending the National Funeral Directors' and Embalmers' association convention. Mr. Greenwood attended the convention Wednesday and after attending this morning's sessions he will return to Kaukauna.

GARDEN IS BRILLIANT

Kaukauna — A flower garden on Grignon-st owned by William F. Asche is attracting considerable attention among flower gardeners here. The garden is a mass of variegated colored dahlias in full bloom.

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Newspaper ARCHIVE

LIFE'S ODDITIES

By George Clark



"Mr. Gillings thinks these poems are just peachy, but he wants one he can recite in exactly two and a quarter minutes."

Slump Is Blamed For Hog Cholera

Many Farmers Fail to Immunize Stock With Serum and Virus

Corn Borer Fails To Gain Foothold

Scouts Comb Fields From Kenosha to Door-co Find Small Patch

Madison — That the European corn borer has not become established in Wisconsin is the conclusion reached as an intensive search for this pest comes to an end for another year.

Twenty-four federal scouts and six state scouts employed by the State Department of Agriculture and Markets, have combed the corn fields from Kenosha-co to Door-co, about 10,000 acres, and found the dreaded corn borer in but one field — a half acre of sweet corn in the suburbs of Racine. This small field of corn was promptly cut and either fed to the owner's cow or otherwise destroyed.

The European corn borer is generally distributed in southern Michigan, northern Indiana and eastward to the coast. For several years its advent into Wisconsin has been feared and each summer a crew of especially trained men have engaged to scout Wisconsin corn fields. In 1931 a small infestation was found in several adjacent fields in Manitowoc and Sheboygan-co.

The thorough clean-up measures applied to this district were evidently successful in stamping out the infestation since no borers were found there this summer. It is expected that the clean-up in Racine county will be equally successful.

In addition to the scouting, the state through the office of the state entomologist, maintains a quarantine against ea corn, corn stalks and other plants that might harbor the pest and none of these may be imported from infested states without a special permit.

KAUKAUNA PERSONALS

Kaukauna — Mr. and Mrs. Herman Bloy are in Clintonville today where they attended the funeral of Mr. Bloy's brother, Robert, who died Monday.

Mrs. Joseph Siebold of Aniwa, w... has been confined to a Green Bay hospital for the past month with illness, has been removed to the home of her sister, Mrs. Charles Kalista, of this city.

Mr. and Mrs. August Heinz are visiting in New London today.

Stuck?

Next Time buy GILLETTE Super-Tractions

Exclusive Gillette design... needs no chains... big button tread

pulls you through mud, snow or sand... easy riding... wears like iron... no skidding... holds records for racing, hill climbing.

There's a Gillette dealer near you.

Young. Failing either he would have preferred anybody on earth to his enemy, Franklin D. Roosevelt.

evilt came along and repaid the entire benefit. How sour that taste of politics.

Curiously enough, it was the feeling in the south and west concerning the Smith-Raskob combination and the knowledge that they were working against Roosevelt which did more than anything else to solidify support behind the governor and insure Raskob's retirement from politics.

After his four years of patient effort and building for 1932, Roosevelt

never disappoints. 35 cents a box at any drug store. Adv.

When Skin Itches

Don't give up or become discouraged — others may fail—but when skin is fiery and itchy and eczema tortures your body, Peterson's Ointment is sure to give instant relief and quickly heal.

It never disappoints. 35 cents a box at any drug store. Adv.

MIKEY AND HIS MA

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GET YOUR CAR GREASED RIGHT!

We have the right grease for your car. Drive right in and have it done with the right equipment. Our prices are right!

PROGRESS CONOCO OIL CO.
224 N. RICHMOND ST. PHONE 5981



BUY WISCONSIN MADE TIRES

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TIRES AND TUBES
MADE IN EAU CLAIRE, WIS.

Appleton Engine Works
615 W. College Ave. APPLETON Phone 1450

Appleton's Army Store ATTENTION HUNTERS

CORDUROY JACKETS

All Colors SPECIAL

\$1.98

Suede Leather JACKETS

\$10.00 value. **\$5.50**

Buck-Skein JACKET

A Real Coat. Zipper style. For outdoor wear.

\$2.98

Mackinaws

Double back. Special

\$3.75

Wool Breeches

Army Style

A real buy. **\$2.69**

Knee Boots

Firestone. Black with red sole.

\$2.45

Unionsuits

Winter weight. random color. Special

79c

Work Pants

Dark patterns. Special

88c

Boot-Sox

Heavy Wool Sox

3 Fair \$1

SEE US BEFORE YOU BUY
YOUR LEATHER COATS
AND SHEEPSKIN COATS.
WE CAN SAVE YOU MONEY

Boys' School Shoes
A Bear for Wear. Special **\$1.65**

Boys' Tweedory Knickers
With or without elastic waist **\$1.49**

Hunting Coats
Waterproof. Special **\$2.98**

Thursday Evening, September 29, 1932

APPLETON POST-CRESCENT

Norris Gives His Backing to Gov. Roosevelt**New York Chief Says Nebraskan "Better Republican Than Hoover"****Aboard the Roosevelt Special**
—Gov. Roosevelt, with the public avowal of his candidacy by Senator George W. Norris entered on the record, today crossed Nebraska to Sioux City, Iowa, where he will discuss the long time difference of the Democratic and Republican parties on the tariff.

After Norris, independent Republican at McCook, Neb., last night publicly endorsed Roosevelt, declaring "patriotism demands that we put our country's interests before our party's interests." Mr. Roosevelt said "I rejoice in and approve the statement that Senator Norris is a better Republican than President Hoover."

Tonight, in a baseball park at Sioux City, Mr. Roosevelt will take up the issue that has historically divided the Democratic and Republican parties. Before crossing the Missouri river, which separates the two states, the nominee will stop at Omaha from 9:30 a.m. until 3:30 p.m.

Last night at McCook, home town of Senator Norris, Roosevelt

heard the veteran legislator espouse the Roosevelt candidacy. Speaking to a crowd of 20,000 or more at the Red Willow-co fair grounds, Norris said, "what the country needs is another Roosevelt."

"Next President"
"And here he is," continued Norris, turning toward Mr. Roosevelt who stood beside him, "the governor of New York, the next president of the United States."

Responding, Roosevelt asserted, his arm sweeping toward the white haired Nebraskan, "our cause is common. I welcome your support. I honor myself in honoring you."

Twilight was just falling over the plains when Roosevelt and Norris drove into the fair grounds on the outskirts of the little city of 7,000 near where the senator was born.

Both stood in the dust of a race track, beside an auto and facing the packed grandstands and the crowd overflow that spread across the racing ribbon and into the lawn inside the fence.

During this campaign, as the senator knows," said Roosevelt, "I have stressed the fact that my quarrel is not with the millions of splendid men and women who in the past have called themselves Republicans, but that my battle is against certain forces now in control of the leadership of the Republican party, who have forgotten the principles on which the Republican party was founded and have become representatives of a selfish few who put personal interest above national good."

That is why I rejoice in and approve the statement that Senator Norris is a better Republican than President Hoover. To those who say Senator Norris is no respecter

of parties, I would suggest something more important. "Selfish business which seeks through the tariff monopoly on a given product in order to obtain vast private profit at the expense of the people, is no respecter of parties."

"Those bankers and brokers who, in order to obtain a commission will willingly receive an investing public into buying worthless domestic and foreign bonds, are no respecters of party."

"A conscienceless power trust seeking to charge the home owner, the small manufacturer and the little business man all the traffic will bear is no respecter of parties."

"They are," continued Mr. Roosevelt,

several, the "lineal descendants of the men and the organizations who called Jefferson a radical, who called Jackson a demagogue, who called Lincoln a crack-pot idealist, who called Theodore Roosevelt a wild man, who called Woodrow Wilson an impractical idealist."

"Senator Norris, I go along with you because it is my honest belief that you follow in their footsteps; radical like Jefferson, demagogue like Jackson, idealist like Lincoln, wild like Theodore Roosevelt, theorist like Wilson."

"Dare to be all of these as you have in bygone years, so can we most greatly help our beloved nation in time of need."

Norris made a reference to Tam-

many hall which brought a smile to Roosevelt's face.

Discussing the Democratic convention at Chicago, Norris said, "representatives of monopolies and special interests fought Gov. Roosevelt with a relentlessness which disregarded fair play, honesty and truth."

One of the "cries used against him," added the senator, was that he was "controlled by Tammany." "But," said the Nebraskan, "when Gov. Roosevelt got through with little Jimmie Walker, the Tam-

many cry vanished and we have not heard it since."

Gov. Roosevelt will arrive at Sioux City at 7 p.m. speak at 8 p.m., and leave for Milwaukee at 10 p.m.

COMMITTEE TO MEET

The finance committee will meet at city hall Friday afternoon. Bills to be presented at the meeting of

the common council next Wednesday will be considered.

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Every Friday Night
CHICKEN LUNCH 10c
Every Saturday Night
Plate Lunch 25c Daily

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IF YOU BELIEVE IN SIGNS! — and in finding out what's behind them — you'll want the inside dope on this one!

"RESERVED FOR LADIES"—Added—
All-Talking Comedy
Screen Novelty
—With—
LESlie HOWARD
BENITA HUME

Sat.—Sun.—WILL ROGERS in "AMBASSADOR BILL"

Big Opening DANCE

Thursday,
Sept. 29

(instead of Saturday night)

at the
Bright Spot Ballroom
(Formerly the Dardanelle)Under New Manager —
"Big Al"MUSIC By
Hollywood Serenaders
Featuring
Miss Doris Warning

Probe Body Is Named in Death Of Aged Woman

District Attorney's Absence on Riske Retrial Delays Action

Special to Post-Crescent

Waupaca—A coroner's jury composed of James Dance, Clint Hartman, Albert Kreger, Arthur Woody, A. G. Jennings and Tom Brown will investigate the death of Mrs. Levia Burdick, 85. The jury will sit Oct. 7, the delay being caused by the absence of the district attorney, who is attending the Riske retrial at Wautoma.

Mrs. Burdick was killed almost instantly Wednesday morning by a county truck driven by Ludwig Leet of Waupaca. It is reported that she apparently became confused on seeing the truck approach and started to retrace her steps. Mrs. Purdick's only near relative is a nephew, H. E. Riden of Milwaukee.

A fire, supposedly caused from combustion, completely destroyed two barns on the McCabe farm about 10:30 Wednesday morning. The fire department from Waupaca was called and every effort was made to save the silo. A cow, four small calves, and all the feed, hay and harnesses were burned. The loss is covered partially by insurance. The barn owned by the McCabes on the farm adjoining the Bunker Hill school caught fire at the same time but was extinguished before much damage was done. The high wind carried the sparks a great distance. The fact that the wind was from the northwest saved the house from burning.

The Waupaca County Association of Royal Neighbors met in New London Tuesday guests of the New London Camp. The following members from Waupaca attended: Mesdames Charles Solie, Joseph Ireland, Ray Wakefield, Clayton Johnston, Clarence Bucknell, Art Barnhart, Reid McLean, Guy McLean, Eva McLean, Alfred Peterson, Bert Quimby, Louis Johnson, H. P. Olson, Carrie Bradway, Walter Roehr, Will Clough, Lars Rasmussen, Earl Porter, Paul Niles, Christina Smith, Richard Bonikowski, Frank Button, Marion Bonser and the Misses Eva Oertel, Hazel Clough and Dolorah Solie. The Waupaca Camp took part in exemplifying the work in the afternoon.

Mrs. Mary Schoonover of Winneconne left for her home Wednesday evening having spent the past week at the home of her brother, Charles Button and family.

Several ladies from Waupaca attended the Waushara County Convention of Royal Neighbors held at Wild Rose on Monday.

Bowling Leagues Get Started for Season

(Special to Post-Crescent)

New London—In the bowling leagues the Interfactory league, which started its schedule last week, showed Christy's taking four out of six games. The Plywoods and Borden's have split even, and the Verines have won two and lost one, while the Buicks and Dave's are just the reverse. The Lions league, which got under way Monday evening, show the Tamers and Roarers in the lead, winning two and losing one. The Growlers and the Twisters each won one game and lost two. The Legion teams will hit the alleys Friday night to start out their league play.

LOOKS ARE DECEIVING

Fort Worth, Tex.—Behind the torn coat of many a bum there lies a fortune, some one once said, and police here now believe that saying. They picked up an old German recently who was as rough as anyone ever admitted to jail. Inside his coat \$1380 in cold, yellowed bills were found. The money was wrapped in newspapers.

Bull Dog Eleven at Shawano Next Sunday

(Special to Post-Crescent)

New London—The Bull Dogs will open their league season at 2:15 Sunday afternoon at Shawano. Little is known of Shawano's strength this year, although Bud and Al Reid in the backfield will cause the home team plenty of trouble. Lange, Graney, Hartjes and Much will start the game for the home team in the backfield. Wronke will play center, being flanked by Schoepf and Carver. Winters and Bannock will handle the tackling positions while Laird and Lathrop will be at ends. Greg Charlesworth practised with the team last evening and will probably be out in uniform on Sunday. Playing in the backfield, the former Stevens Point star will be a valuable addition.

Shawano Next Sunday

(Special to Post-Crescent)

New London—In the bowling leagues the Interfactory league, which started its schedule last week, showed Christy's taking four out of six games. The Plywoods and Borden's have split even, and the Verines have won two and lost one, while the Buicks and Dave's are just the reverse. The Lions league, which got under way Monday evening, show the Tamers and Roarers in the lead, winning two and losing one. The Growlers and the Twisters each won one game and lost two. The Legion teams will hit the alleys Friday night to start out their league play.

Proverb Puzzle

HORIZONTAL

Answer to Previous Puzzle

1	Most important fluid in man's body.	HEM	HINDEBURG	DINED	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE
2	5 To imitate.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
3	8 Green spot in a desert.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
4	13 Inner sole.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
5	14 Imbecile.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
6	16 Neap.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
7	17 Female sheep.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
8	18 Denser.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
9	20 Energy.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
10	21 Article.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
11	22 Ratite bird.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STATED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
12	23 To loiter.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
13	25 Like.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
14	26 Wages.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
15	27 To immerse.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
16	28 Meas.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
17	29 Meas.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
18	30 Meas.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
19	31 Word indicating second member of a comparison.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY	SENTIMENTS	ASE	
20	32 Agua.	PIED	HINDENBURG	SORTIE	OE	EVADES	RIOT	CON-	RECIPES	EN	ROME	STARTERS	DETER-	AS	STADED	BE	ERA	NE	EVER	PULP	ST	ACT	ER	PERILS	E	SLOOD	SALICETS	AIRS	AM	TEARING	SPY	TRIP	STOLAE	IS	MAULER	EMERY			

Yanks Take Advantage of Cub Lapses and Win First Game

Lou Gehrig's Home Run Is Only Thrill

Guy Bush and Burleigh Grimes Fail to Stop A. L. Champions

BY EDWARD J. NEIL
Associated Press Sports Writer

NEW YORK.—(P)—Thanks to an old established act, as dependable for drama, thrills, and the triumph of virtue as was "East Lynne," back in the gas-lit days, the Yankees were booming again along the victory trail today, possessors of their ninth straight world series triumph.

Just when the skies were darkest in more ways than one, when it seemed as though Guy Bush, was well on the way to breaking up an act that flourished through the post-season championship struggles of 1926, 1927 and 1928, the team of Babe Ruth and Lou Gehrig, rose in their might, smote the transgressor, and shattered the morale of the Chicago Cubs in the opening game of the world series.

At the end of a stormy day, next to the poorest in the matter of attendance a Yankee world series ever has known, a day that started in a rain storm and ended in glistening sunshine, the score stood 12 to 6 in favor of the American league champions. But the final score told nothing of the gaudy return to world series play of the heroes of 1927 and 1928, when the Yankees won two world titles from the Pilots and Cardinals in eight successive games.

Ruth Starts Scoring

It was Ruth, just recovered from a mild attack of appendicitis, who marched to the plate in the third inning with the Cubs leading 2 to 0, and Earle Combs, the first Yankee runner Bush had allowed on base, resting on second through the medium of a base on balls and an infield out.

The Babe smashed a long single to right, and the grey-haired Kentucky colonel raced home. Lou Gehrig tramped to the plate. The count reached three and two. He laid into the "deciding" pitch, a "screw" ball on the outside corner, and belted it far on a line into the deep reaches of the right field stands. The Yankees led 3 to 2, and the game might just as well have ended there.

That home run smash unsettled Bush's pin of the Cub curvers, and shattered the morale of a team that had pranced into battle, cocky and confident, to grab a quick two-run lead off burly Charley Huffing, best of the Yankee right hand pitchers. Bush lost his control and his stuff. His mates faltered behind him. And the game wore on to its inevitable conclusion, a dreary, pointless sort of duel, like two friends boxing for the fun of it. Ruth and Gehrig, their work done, faded into the background of the general scramble.

Only 41,459 spectators, far under the record for world series attendance set at 63,600 by the Yankees in 1925, braved a chilly rainy morning and the decreasing showers that delayed the start of the opening game 15 minutes, to see the highly favored Yankees tear away to an impressive start.

Yanks Are Outhit

It wasn't so much that the Yankees, famed for their hitting array, overpowered the Cubs as was expected, or that the giant red-headed Buffing handicapped the National League hitters with his fireball and crackling curve. Neither of those things happened.

The Cubs, as a matter of fact, banged Ruth the Red briskly in spots, but only after the Yanks had sprinted far to the front. The Bruins picked up ten hits, among them a pair of doubles and a triple, while the men of Joe McCarthy touched Bush, and his successors, Burleigh Grimes and Bob Smith, for only eight.

Instead the Yankees took advantage of every lapse in the Cub defense, of the streaks of wildness that afflicted both Bush at the end of his staff, and Grimes during his brief return to the spotlight that last upon him when he stood on the Cardinal peak last fall, and twice whipped the champion Athletics.

Patiently little Joe Sewell, Ruth and Gehrig waited in the sixth inning for bases on balls. Not until the sacks were filled did the Yanks count their third hit off Bush. But when a hit was needed most, after Lazzeri had filed out, Bill Dickey mashed a single to right and two more runs were in.

That was a total of five runs on three hits. Before the lanky southerner left the premises in favor of the grizzled Grimes, a fielder's choice scored Gehrig and another walk filled the bases again. Then it was that Earle Combs banged a single off Grimes, scoring two more. Thus did eight runs ride home on four hits.

Cubs Start Fast

The Cubs caught Ruffing slightly off guard at the start and Bill Herman's opening single, Woody English's safe drive to right that went through Ruth's legs for a two-base error, and the first of three singles by Riggs Stephenson, veteran of the

Chaff 'n ChatteR

By Gordon E. McIntyre

I must not be much fun to fight this Max Siegfried Adolf Schmeling. He seems to be the kind of a guy who shoots for the eyes.

They called a halt on the German's assault of Mickey Walker in the ninth round when both of the only pair of eyes the Mick has left were closed. And my memory of the appearance of Jack Sharkey after going 15 rounds with the beetle-browed Dutchman is that one big shiny lump on Sharkey's face where an eye should have been.

Max attacked Strubing's eyes. In the last round of their stirring battle on the Cleveland lake-front, Double Yell was pawing blindly about the ring, trying to find the fellow to hit him.

Risko suffered eye trouble after his bout with Schmeling and so did Paulino.

Maxie Knows It

In order to hit a man, it is almost essential that one see him. Maxie himself always has taken

very good care of his eyes. He received a slightly black eye in the Strubing bout and immediately rushed back to Germany, canceling all engagements and placing himself under the care of the best eye specialists in his home land.

Of course, you can see with only one "mince pie" working. But the point is that you cannot see very well. If you think you can, close one eye and try running for a street car. There's a very good chance you'll miss it and wind up with an armful of fenders.

Timing is one of the most important elements of a punch in boxing, and if the eyes are not coordinating, if one orb is out of commission, the boxer's sense of distance is vague.

Danger of Infection

Dempsey, after his first fight with Tunney, worried a great deal about his eyes. Tunney was the slashing sort of fighter, more likely to inflict great damage to the eyes than a slugger. The hand, dragged across the eye, leaves irritating resin and dirt, which is apt to cause infection.

Eye infection has been a serious tragedy in the lives of some of our great heavyweights. Someone asked Dempsey, after his second affair with Tunney, if he meant to fight again.

"No, I'm through," said Jack. "I want to keep this (pointing to his forehead) and these (touching his eyes). You know what happened to Harry Greb. I want to see my way around for a while yet."

It Happens to Many

Greb was partly blinded by blows being one of the gampest fighters who ever lived, carried on and spent the last days of his life in the shadows. Pete Herman of New Orleans, former bantamweight champion, is almost totally blind. The splendid lightweight of other years, Sammy Mandell has been suffering from serious defects of vision. Sam Langford is nearly blind.

Many cheap fighters resort to the trick of hitting an adversary on the head, and as the blow is struck, allowing the thumb of the glove to stick out straight and dig at one of the eyes. This is a variation of the gouging tactics frequently employed in the rough-and-tumble battles of the old days in the back rooms.

Schmeling, of course, is not that kind of a fighter. He is rough but he is a straight shooter.

Badger Center

Is Ineligible

So Kabat Is Sent to Pivot Post, Goldenberg to Quarter.

Hanley Abandons Plunges for Passes

Chicago.—(P)—Missouri may be mistreated with a dazzling aerial display Saturday when its football tiger tangles with Northwestern's Wildcats.

Unable to obtain satisfactory results with the old fashioned system of line bucking, Coach Dick Hanley has his team keyed up for a forward pass attack—and defense—that may promote non-stop victory flight.

In a long dummy scrimmage against a better than average freshman squad, yesterday, the Wildcat regulars unleashed an impressive aerial attack that sent the yearlings back on their heels. Added to their fine showing came the happy news that most of the injured were ready for action against Frank Carideo's invaders.

Marquette to Use Passes Against U. W.

Milwaukee.—(P)—Marquette's varsity football squad looked impressive yesterday both on offense and defense in the final hard workout in preparation for the Wisconsin game Saturday.

Red Dunn, freshman coach and former professional backfield star at Green Bay, played with the yearlings, but was repeatedly smothered while displaying Wisconsin formations.

It was evident throughout the session that the Hilltoppers will rely greatly on forward and lateral passes to beat the Badgers when they meet for the first time since 1919.

Chicago outfield, bounced two quick runs across.

Ruffing settled there, however, and breezed to the seventh inning fanning along the way eight of the ten men he turned back all told on strikes, just three less than the world series strikeout record.

In the seventh Herman's second single, a two-base error by shortstop Frank Crosti on Kiki Cuyler's grounder, another Stephenson single and an infield out scored two, while Gabby Hartnett's second double of the day, Marie Koenig's triple, and an infield out added the final Cub pair in the eighth.

Both managers have nominated starting pitchers for today. Vernon Gomez, crack young southpaw, was McCarthy's choice and Lon Warneke, the sensational youngster of the Cub staff, the hope of Charlie Grimm to even the series before the two teams leave tonight to resume the battle in three straight games starting on the Chicago front Saturday.

This year's University of Illinois football squad will have only two players with more than one season's varsity experience—Capt. Gil Berry and Pete Yanusuk.

Marion Tolley, Decatur, Ga., junior, has been shifted from full-back to halfback on the Auburn football team. He weighs 180.

Herbie Thompson Out Points Stubler

Stevens Point, Wis.—(P)—Irish Kennedy, 150, of Iron Mountain, Mich., outpointed the Ace of Spades, 155, Minneapolis, in the 10-round main event bout of a fight card here last night.

Herbie Thompson, 140, New London, outpointed Augie Stubler, 140, Sheboygan; in six rounds; Gus Gould, 145, Minneapolis, beat Pete Stachowiak, 145, Wausau; Al Rogers, 130, Minneapolis, beat Dick Richards, 129, Sheboygan; Matt Cammerer, 150, Chippewa Falls, defeating King Cole, 152, Wisconsin Rapids.

Battle of Ends Forecast When Bays, Giants Meet

Packers in Fair Shape After Gruelling Fracas With Bears

GREEN BAY.—In pretty fair shape despite the bruising they received at the hands of Chicago's Bears last Sunday, the Packers were pointing today toward the protection of their 1932 undefeated record, as they prepared for the invasion of the New York Giants, next Sunday.

Extra sessions before the blackboard were ordered for the squad this week, as Coach E. L. Lambeau attempted to iron out the team's rough spots. Every Packer realized that the New York game is one of the very toughest on the schedule, and there was no trace of over-confidence as the big men groomed for the contest.

All trains and buses leading into Green Bay over the week-end will feature special excursion rates, and the largest outside crowd in years is expected. Packer interest has spread through the northeastern Wisconsin area this year, with its accustomed thoroughness, and all incoming trains Saturday and Sunday are expected to carry enthusiasts heading for City stadium and the Giant-Packer clash.

Will Arrive Saturday

"The battle of the ends" is a phrase which is being used to build up interest in the week-end battle, as four of the greatest ends in the National league are slated to see action, probably all at the same time.

The reputations of Nash, Dilweg, Badgro and Flaherty have well known to all Packer fans, and super wing play always may be counted upon when the four are featured in the same game.

The Giants will arrive in Green Bay by mid-afternoon Saturday.

While Mack contented himself with the bare announcement of the deal, Sox officials were less reticent.

"It means we are through trying to develop a winning team with rookies," said Harry Grabiner. "This is only the beginning. We are going out to get the players we want."

While Haas and Dykes are considered valuable players, Simmons is the big gun in the deal. Possessed of a nine-year major league batting average of nearly .300, he is well known to all Packer fans, and super wing play always may be counted upon when the four are featured in the same game.

The element of pageantry brought forth in many a recent Packer game, will be furthered by the crack Fond du Lac Legion rifle and drum corps one of the finest organizations of its kind in the country, which will parade between halves. The Fond du Lac corps always puts on a snappy drill, and its appearance is regarded as a distinct feature of the contest.

As a result, Coach Clarence Spears began training for the pivot post none other than Capt. Greg Kabat, who was being groomed for center on the first team, was the victim of scholastic requirements.

He learned yesterday that he had failed to pass a conditional examination he wrote last week.

As a result, Coach Clarence Spears began training for the pivot post none other than Capt. Greg Kabat, who has now played just about every position on the team.

For the past two years he was at guard but Coach Spears turned him into a quarterback this fall.

Another far-reaching change made yesterday was the shifting of "Buckets" Goldenberg back to his old post at quarter. He had been used for the last week at right tackle in an effort to bolster the line but the loss of Femal necessitated a change again.

"Moon" Molinaro went to the first team as a result of the changes. Ray Davis was shifted from left tackle to right tackle and Molinaro was given the left tackle berth. Harvey Kranhold and Mario Pacetti were the first string guards yesterday while John Schneller and Ralph Lovshin were the ends.

In the backfield, Coach Spears used Goldenberg at quarter, Nello Pacetti and Bobby Schiller as halfbacks and Hal Smith as the fullback. This comprised the lineup which will likely be the starter against Marquette here Saturday.

Coach Spears let the Badgers taper off their practice, giving them only a short scrimmage in which the varsity improved its defense. The freshmen continued to use Marquette pass plays in an effort to acquaint the varsity with the Hilltoppers' expected air attack.

Last year Don Sawyer won the championship after tying with Schuyler "Tubby" Gould.

Plenty of wild play has been forecast with the famed Packer aerial attack coming out into the open for the first time this season.

Heavy, bruising line plays will be substituted by open work in every quarter, according to students of the game who are familiar with both teams' styles of play.

Although they received a terrific battering last Sunday, the Packers lined up in fair shape this week with an entirely different type of game ahead of them. The dreadnaughts usually take the background, and the speedsters are given their chance, in Green Bay-New York tilts.

Plenty of wild play has been forecast with the famed Packer aerial attack coming out into the open for the first time this season.

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Each winter Charley Peterson, St. Louis trick billiard star, sponsors a tournament for players 70 years or more of age.

And don't be surprised if they are right!

Connie Mack Sells 3 Stars

To White Sox

Al Simmons, Mule Haas, Jimmy Dykes Sold To Chicago Club

BY GAYLE TALBOT
Associated Press Sports Writer

NEW YORK.—(P)—Connie Mack, venerable pilot of the Philadelphia Athletics, has started tearing apart the great baseball machine he drove to three American league flags in

1929, 1930 and 1931, and the Chicago White Sox, at the same time, have thrown their resources into the market for players of proved ability.

In one of the most startling deals of recent baseball history, Manager Mack announced last night he had sold out-

fielders Al Simmons and George (Mule) Haas, and infielder Jimmy Dykes to the White Sox for cash.

The price paid for the three stars was not announced but Sox officials said it was the largest amount of cash they ever have handed out and probably the greatest sum which ever changed hands in the American league. It was estimated the Sox put around \$150,000 on the barrel head.

Connie Won't Talk

Whether the sale presaged a general breaking up of the present Athletic team, Connie Mack would not say. The consensus was, however, that the 67-year-old leader had something of the sort in mind.

Just 17 years ago he wrecked a glamorous team because it had become saluted with victory. At that time he sent one of his greatest stars, Eddie Collins, to the White Sox and Collins became the cornerstone of a championship club at Chicago.

Where Mack contented himself with the bare announcement of the deal, Sox officials were less reticent.

"It means we are through trying to develop a winning team with rookies," said Harry Grabiner. "This is only the beginning. We are going out to get the players we want."

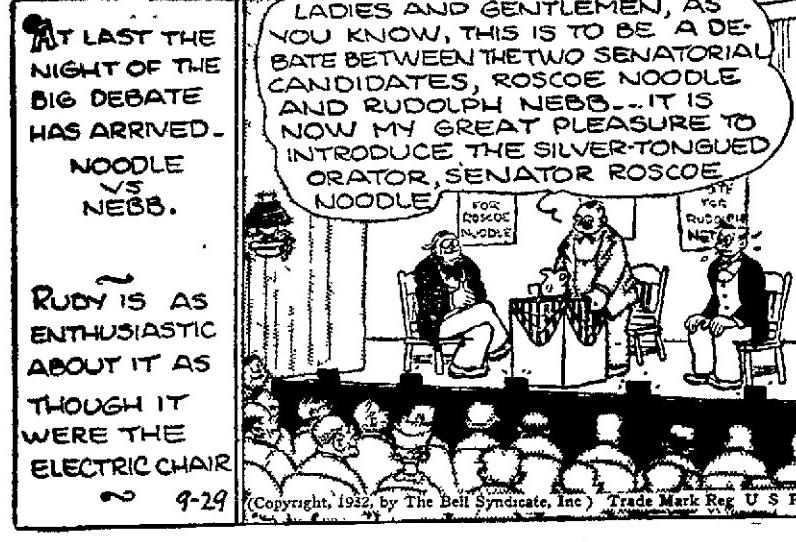
While Haas and Dykes are considered valuable players, Simmons is the big gun in the deal. Possessed of a nine-year major league batting average of nearly .300, he is well known to all Packer fans, and super wing play always may be counted upon when the four are featured in the same game.

The element of pageantry brought forth in many a recent Packer game, will be furthered by the crack Fond du Lac Legion rifle and drum corps one of the finest organizations of its kind in the country, which will parade between halves. The Fond du Lac corps always puts on a snappy drill, and its appearance is regarded as a distinct feature of the contest.

As a result, Coach Clarence Spears began training for the pivot post none other than Capt. Greg Kabat, who has now played just about every position on the team.

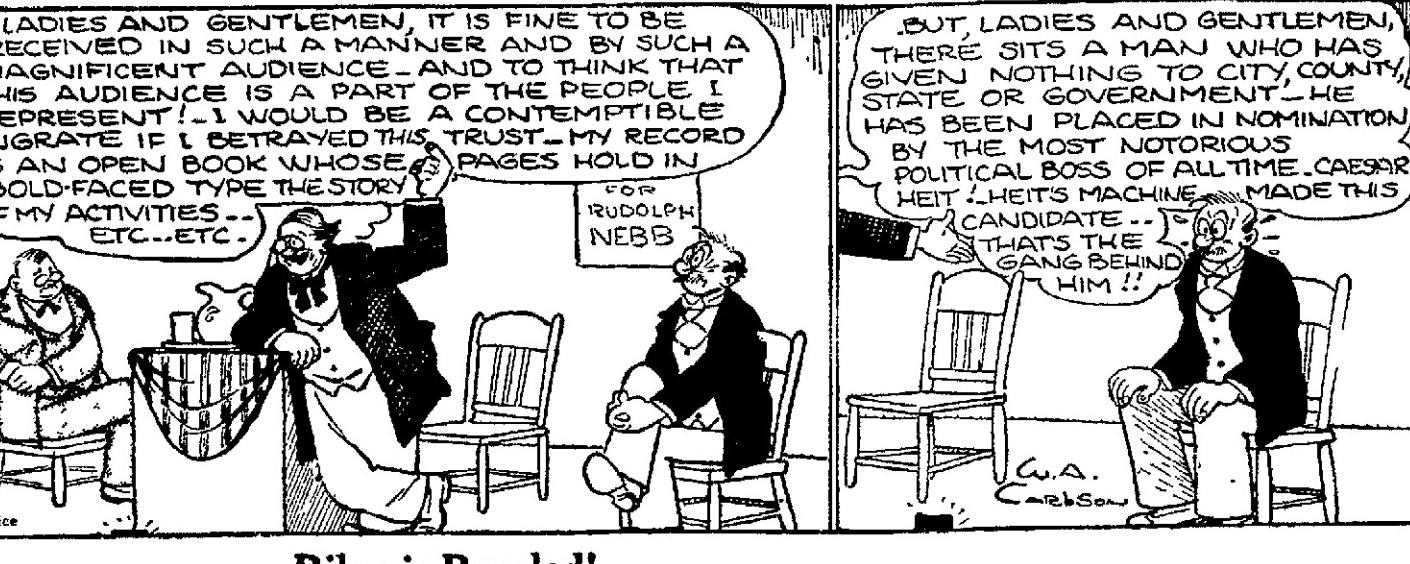
Page Sixteen

THE NEBBS



And in This Corner

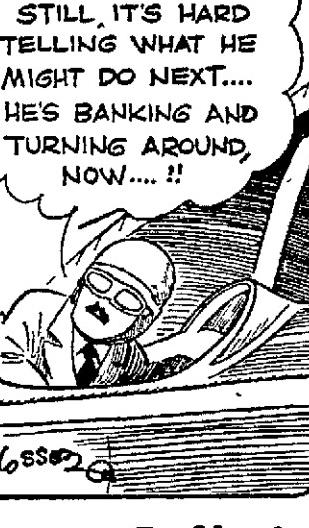
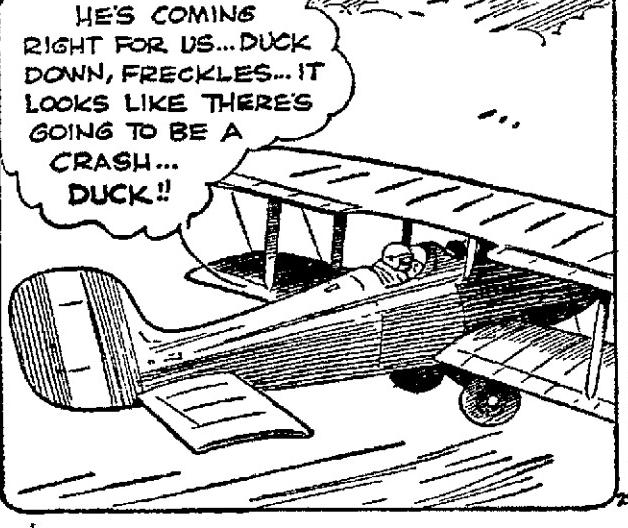
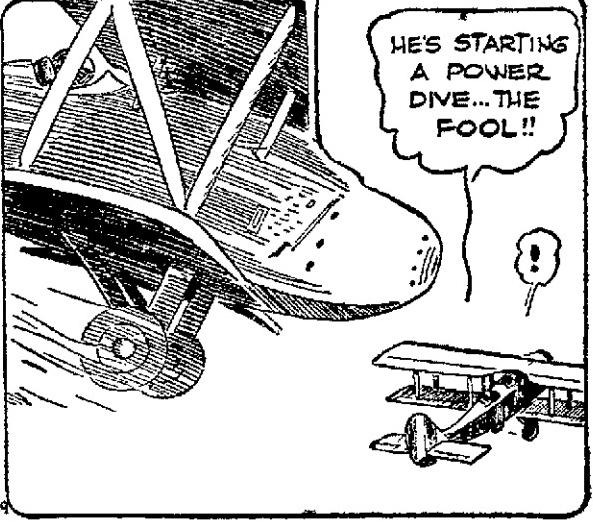
By Sol Hess



Riley is Puzzled!

FRECKLES AND HIS FRIENDS

ORDERED BY THE BANDIT PLANE TO LAND, FRECKLES ROAR ON.... RILEY BARELY MOVES AN INCH OFF HIS COURSE, BUT KEEPS AN ANXIOUS EYE ON THE FAST PLANE!!

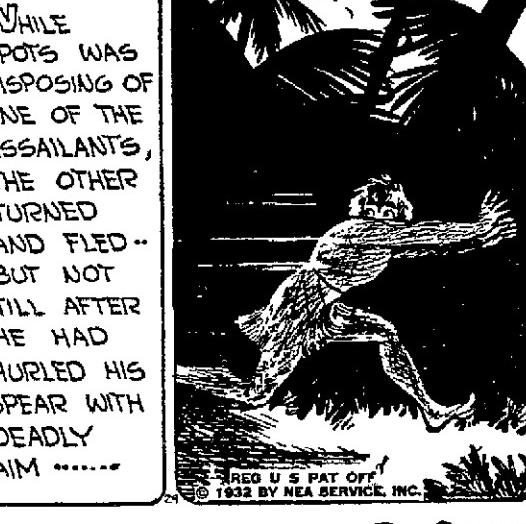
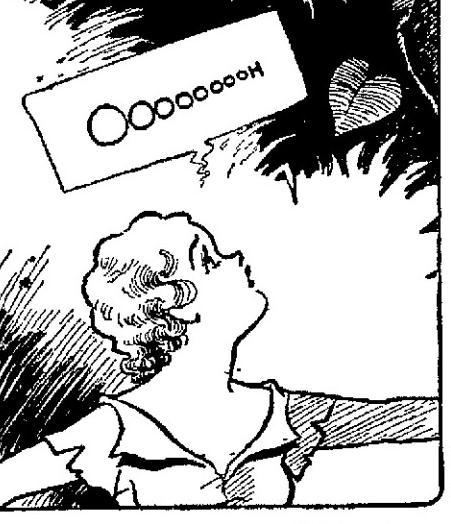


By Blosser

Good Old Spots!

BOOTS AND HER BUDDIES

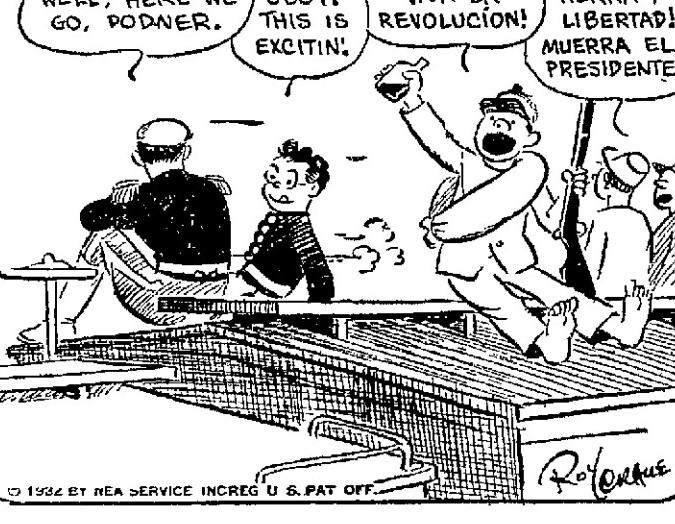
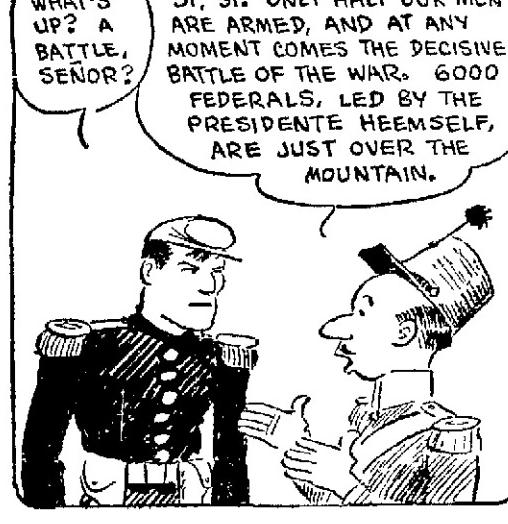
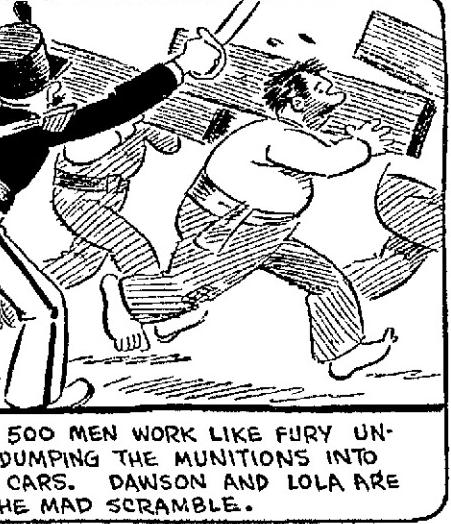
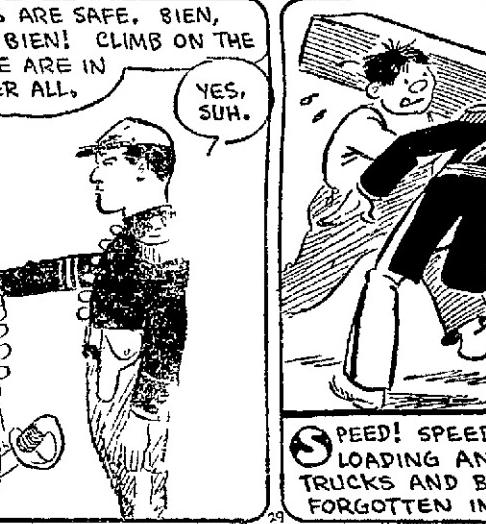
Boots was congratulating herself on her escape from the natives when, to her horror, two ugly looking brutes sprang from a hiding place and seized her.



By Martin

WASH TUBBS

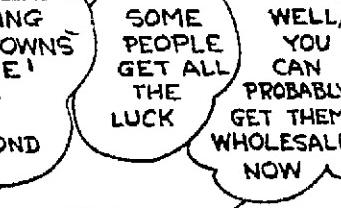
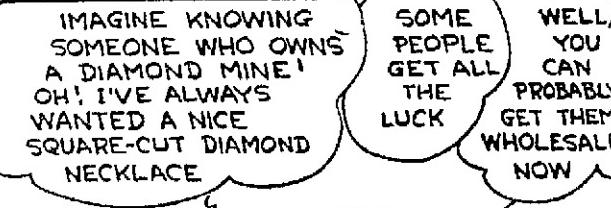
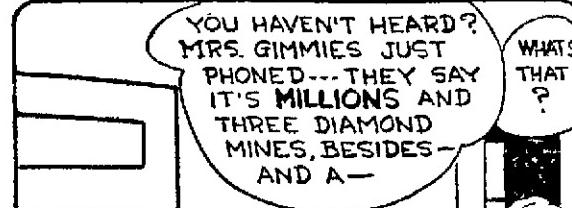
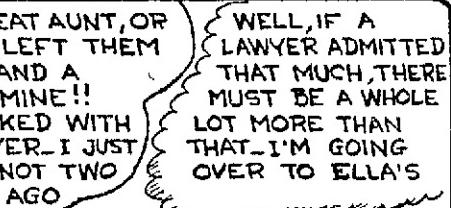
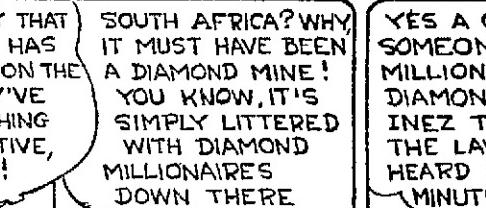
AH! THE MUNITIONS ARE SAFE, BIEN, MI CAPITAN, MUY BIEN! CLIMB ON THE TRAIN - PERHAP WE ARE IN TIME AFTER ALL,



By Crane

THE NEWFANGLES (Mom'n Pop)

I FOUND OUT WHY THAT INSTALLMENT MAN HAS STOPPED CALLING ON THE NEWFANGLES. THEY'VE BEEN LEFT SOMETHING BY A DISTANT RELATIVE, IN SOUTHERN AFRICA!



By Cowan

OUT OUR WAY

WHAT KIND OF A CRACK-BRAIN STUNT IS THIS, NOW?

WELL, TH' PADDIN' IS ON TH' DOOR AN' IN TH' KEYHOLE SO I CAN'T HEAR YOU HOLLERN', AN' YOU HAFTA COME UP TO WAKE ME - AN' WHEN TH' DOOR PUSHES TH' ROPE, IT CLOSES TH' WINDER AN' OPENS TH' HEATER. I SHOULD'N OF TOLD YOU CUZ, IF YOU THINK I GOT A LOT OF GOOD OUTA SUMPN', YOU TRY TO FIND A WAY AROUND IT.



By Ahren

9-29

DOWNERS

Irving Zuelke Building

BEAUTIFYING more complexions than ever before

Women everywhere have learned from experience that high price is not the only sign of quality in beauty creations. So now they choose Jontee.

Jontee Face Powder with its scientific cold cream base clings lastingly! Jontee Cold Cream is the popular three purpose cream. Try them!

JONTEEL TOILETRIES Accepted by smart women everywhere

DEEP CUT PRICES

BACK to SCHOOL! They need these VITAMINS

The best way to keep your children strong and well during trying school days is to see that they get plenty of Vitamins A and D. So choose Puretest Cod Liver Oil. It is the cream of the finest supply of cod liver oil. Always ask for Puretest Cod Liver Oil.



THE Rexall DRUG STORE

Nothing Venture by Patricia Wentworth

SYNOPSIS: Behind the security and wealth of Wear, her husband's country place which she is seeing for the first time, Nan Ware senses sinister movements. Unknown to her Robert Leonard and Rosamond Carew, who are plotting against Jervis' life and property, plan to visit in the neighborhood; Jervis refuses to believe Nan's statement that Leonard twice has tried to murder him.

and the moonlight ran across the floor. She stepped outside and closed the door behind her, holding to it. There was a soft woolly mat under her feet.

Her room was at the end of a short passage. The passage gave upon the stair head. The dog's whine and the sound of his padding feet came up the well of the stairs.

She latched her door and went along the passage to the head of the stairs. It was not dark here. The moon struck through a long window set with painted glass, bleaching its colours and making them like colours seen in a dream. Nan went on the rail and looked over into the dark hall. The padding and the whimpering had stopped. She called softly.

"Bran - Bran -" and immediately she heard him take the stair. She saw him for a moment, huge and black against the lighted window, said his name again, and then he was pressing against her, jerking his head up under her hand and whimpering.

"What is it?" said Nan. "What is it, Bran?"

All at once Nan was twice as frightened as she had been before. She wanted to get back to her room and bolt herself in. She took Bran by the collar, and he ran with her. She was breathing hard as she shot the bolt.

When she turned from the door she saw Bran reared on his hind legs at the window with the curtains blowing around him. The moonlight threw a monstrous shadow almost to her feet. His nails scrapped on the sill.

She ran to him and pulled away the curtain.

"What is it? What is the matter, Bran?"

He quivered and blew against the glass. With his hand on his neck she could feel his tickles rise. She pressed against him and looked out. The window looked to the southwest. It was open at the top. Bran pushed the glass with his nose and whimpered. It was a heavy old-fashioned window, and Nan strained as she raised it. The wind flooded the room a soft, damp wind - and she and Bran leaned out together.

The terace beneath the window looked like grey blotting-paper with symmetrical blotches of ink at regular intervals. The blotches were flowered full of crimson and scarlet and orange and flame-colored snapdragons. They had been snapdragons. They had been brilliant under the grey sweep of the rain; now, under the moon, they were blots of ink. It was queer to think of all those bright colours at sleep.

All at once the moonlight drained away. And then under her hand she felt Bran's great throat muscle throb to a growl too faint to reach her ears. She pressed closer to him and whispered.

"What is it?" He flung up his head impatiently. The thrumming went on. A gleam of light slipped out between two hurrying clouds. A far off rumble seemed to answer Bran.

Nan rubbed her cheek against his ear.

"Darling lamb - don't you like a storm?" Is there going to be a storm?"

He shook himself free and leaned forward. She could hear him growing now. A pale violet flare changed the sky, and was gone again. Bran quivered and snuffed the wind. Nan pulled at his collar, and might just as well have pulled at the hasp of the window.

A second flare lit everything with a sudden brilliance. Nan saw the black shadow of the ravine, the inkblack trees beyond it, and the curve of the cliff. It was when it was gone that she knew she had seen something else - a black shape on the edge of the dark ravine. And the shape was the shape of Robert Leonard.

Another flash, and he was gone. (Copyright, 1932, Lippincott)

Nan and Jarvis walk in tomorrow's installment, under the shadow of tragedy.

Thursday Evening, September 29, 1932

Stocks Lower As Bulls Fail To Hold Gains

Lethargic Season Ends
With Many Issues Losing
One to Three Points

(Copyright, 1932, Standard Statistics Co.)

High Low Close
50 20 80
India's R.R.'s U.S. 20 80
Today 62.1 34.5 83.7 64.3
Prev. day 64.4 35.5 100.0 65.8
Week ago 63.5 34.5 100.0 65.8
Month ago 66.3 34.0 115.5 70.0
Year ago 236.8 155.5 344.9 241.7
3 years ago 140.2 121.4 128.1 130.3
High 1932 72.2 39.8 111.1 73.9
Low 1932 35.1 13.2 51.8 42.2
High 1931 140.2 121.4 128.1 130.3
Low 1931 60.0 20.8 92.8 61.3
High 1930 202.4 141.2 281.3 205.8
Low 1930 112.9 86.4 146.4 114.7

BY CLAUDE A. JAGGER
Associated Press Financial Editor
New York.—(P) The stock market was lethargic today; although there were minor chills which from time to time were accompanied with price declines of 1 to about 3 points. Trading appeared to be about three quarters professional.

Bullish forces made an early effort to bid up prices, and succeeded in lifting the railroad equipment, utility and farm implement shares from fractions to more than a point. This gain failed to hold, however, and some of the recent speculative favorites were offered rather freely.

Allied Chemical and DuPont were down 2 points at the worst while General Motors, Chrysler, Mack Truck, Santa Fe, New York Central, Case and American Tobacco declined a point or more before steady.

Steel shares encountered moderate pressure. Extreme losses of a point or so were registered by U.S. Steel, National and Bethlehem. U.S. Steel preferred was off nearly 2 points and Bethlehem Preferred reacted 4. American Telephone and Public Service of New Jersey lost a point or so. Oils were steady and rails quiet.

Speculative attention has recently veered to the railroad equipment companies on strength of reports that the Reconstruction Finance Corp. will consider any reasonable requests of railroads for so-called work loans.

Commodities inclined toward heaviness, a sharp break in coffee futures furnishing the most spectacular change of the day.

Chicago Stocks

By Associated Press

	High	Low	Close
Asso. Teg. Ut.	24	21	21
Borg. Warn.	12	11	11
Chi. Yel. Cab.	10		
Cities Svc.	4	4	4
Com'wth Ed.	77		
Cord Corp.	54	54	54
Crane Co.	7		
Grisby Grun.	14	12	12
Midn. Unit. pf.	22		
Libby Mcn.	23		
Midn. Unit. pf.	2		
Quaker Oats	83.1	83.1	83.1
So. Up. Gas.	91		
Swift Int'l.	182	183	184
Us Gyps.	26		
Utah Radi.	14		
Utr. & Ind. Ind. Pf. Om. Dv.	53		
Vortex Cup.	7		
Walgreen.	148	132	132
Zenith Rad.	18		

CHICAGO CASH GRAIN

Chicago.—(P) Wheat No. 1 hard

No. 1 hard weevily 34¢; No. 2

hard 54¢; No. 2 mixed 33¢; Corn

No. 1 mixed 28¢; No. 2 mixed 28-

28¢; No. 3 mixed 27¢; No. 1 yellow

28¢; No. 2 yellow 26¢-4¢; No. 3

yellow 28¢-28¢; No. 4 yellow 27-

No. 5 yellow 27¢; No. 6 yellow 27-

No. 1 white 28¢-4¢; No. 2 white 28-

28¢; sample grade 24¢-26; oats No. 2

rye no sales; barley 25-37 timothy

2.80 per 100 lbs.; clover seed 7.00-

9.00 per 100 lbs.

New York Curb

By Associated Press

	High	Low	Close
Am. C. Pow. A.	8	5.6	5.6
Am. I. and T.	22	21	21
Am. Sup. Pow.	65	63	63
Ark. Nat. G. A.	21	21	21
As. G. and El. A.	3	26	26
Can. Marc. Wire.	12		
Cent. Pub. S. A.	44	4	4
Cent. St. El.	44	4	4
Cities Svc.	44	4	4
Cities Svc. Pif.	26		
Creole Pet.	21		
De. For.			
Cust. Mex.	5-16		
Eisler El.	24	2	2
El. Bond and Sh.	364	331	34
Ford M. Can. A.	91	86	86
Goldman Sachs	38	34	44
Huds Bay M. and S.	34		
Humble Oil.	43		
Intl. Pet.	101	101	101
Nat. Hud. Pow.	168	164	164
Ohio Cop.	5-16	4	5-16
Roan A. Cop.	74		
Sel. Ind.	13		
Shattuck Den.	24		
St. Oil Ind.	218	214	214
Transcont Air.	24	2	2
Unit Found.	13		
Unit Gas.	34	3	3
Un Lt. and Pow. A.	76	66	68
U.S. El Pow.	12	12	12

Today's Market At a Glance

New York—Stocks heavy; light

Bonds irregular; Australians strong.

Curb easy; utilities sag.

Foreign exchanges irregular; sterling firm.

Cotton lower; local and southern selling; lower cables.

Sugar higher; better spot market.

Coffee weak; reports Brazilian rebels seeking peace.

Chicago—Wheat easy; lower cotton and stocks; weakness Winnipeg.

Corn easy; heavy country offerings; weak cash situation.

Cattle steady to lower.

Hogs slow and steady to lower.

MILWAUKEE GRAIN MARKET

Chicago.—(P) Wheat No. 2 hard 56¢-57¢; corn No. 2 yellow 28-28¢; corn No. 2 white 28¢-28¢; corn No. 2 mixed 27¢-28¢; oats No. 2 white 18¢-19¢; oats No. 3 white 17¢-18¢; rye No. 2 35¢-39¢; barley malting 30-39 feed 25-29.

CHICAGO POULTRY

Chicago.—(P) Poultry live 39 trucks weak; hens 12-15¢; leghorn hens 8¢; colored sprays 11-12¢; rock springs 12-13¢; roasters 9¢; turkeys 16-14¢; ducks 11-12¢; geese 9¢; leghorn broilers 10¢.

Grains Weak as Winnipeg Market Moves Downward

Wheat on Canadian Mart
Drops Below .50 Cents
First Time This Season

BY JOHN P. BOUGHAN
Associated Press Market Editor
Chicago.—(P) With the Winnipeg wheat market dropping to a new bottom price record, below 50 cents the first time this season, all grain developed weakness today in Chicago.

Stop loss selling orders were uncovered in the Winnipeg market. A delegation of Chicago grain-men called on President Hoover today regarding the use of Reconstruction Finance corporation funds to facilitate grain exports, corn in particular, but news of the visit had no effect on the market, all deliveries of corn outdoing the season's previous undermost quotations.

Argentine wheat crop conditions were reported as more favorable than of late, and the Liverpool market today was unresponsive to yesterday's late upturns of prices in North America. On the other hand a pretty good export business overnight was noted despite weakness of cables. Meanwhile, bears attached significance to word that Minneapolis mills during the week ended Sept. 24 had an output of only 46 per cent of capacity.

Favorable weather in Canada for the movement of new wheat did a good deal to handicap bulls. Winnipeg reported today's arrivals as aggregating 1,669 cars, a decided reduction compared with a week ago but contrasting sharply with 388 a year ago. It was officially estimated that Canada has 416,500,000 bushels available for export, compared with 296,500,000 at this time last year. Increased rural offerings of corn put a weight on prices of corn and oats. Provisions were neglected.

CHICAGO GRAIN TABLE

Chicago.—(P)

High Low Close

	High	Low	Close
Sept. old ...	52	51.1	51.1
Sept. new ...	52	51.4	51.4
Dec.	55	53.8	53.8
May.	59.5	58.1	58.1

CORN—

	High	Low	Close
Sept. 261	255	255	255
Dec. 268	271	274	274
May. 338	322	324	324

OATS—

	High	Low	Close
Dec. 173	176	176	176
May. 201	202	20	20

RYE—

	High	Low	Close
Sept. 334	324	324	324
Dec. 36	35	35	35

LARD—

	High	Low	Close
Sept. 4.95	4.82	4.82	4.82
Oct. 4.87	4.75	4.75	4.75

CORN—

	High	Low	Close
Sept. 2.80	2.78	2.78	2.78
Oct. 2.80	2.78	2.78	2.78</

Results Are Never Slow With the Classified Ads and Their Bargains

Appleton Post-Crescent Classified Advertising Information

All ads are restricted to their proper classification and to the regular Appleton Post-Crescent style of type.

Daily rate per line for consecutive insertions:

Charge Cash

One day 12 .12

Three days 11 .10

Six days 10 .09

Monthly charge, 50c.

Advertising ordered for irregular insertions take the one time insertion rate, no ad taken for less than basis of two lines. Count 5 averages about a line.

Charged ads will be received by telephone and if paid at office with in six days from the first insertion, insertion will be allowed.

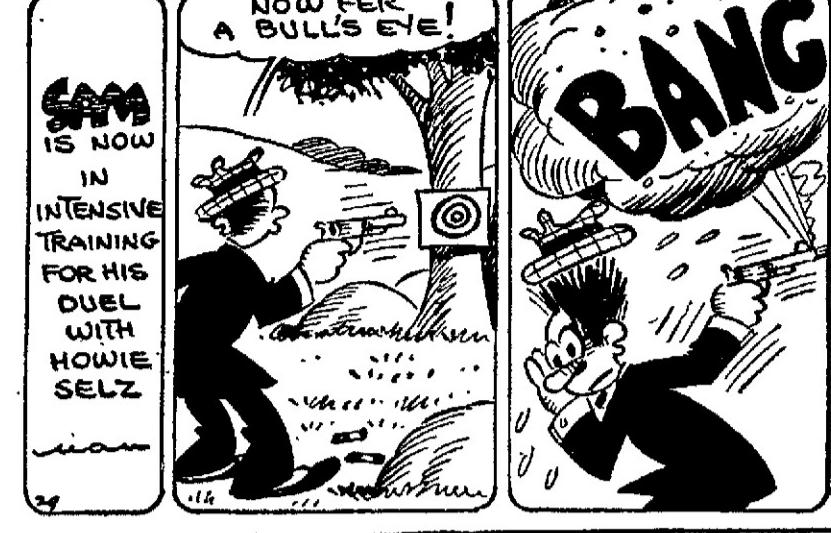
Ads ordered for three days or six days and stopped before expiration will only be charged for the number of times the ad appears in the ad just as though at the rate earned.

Correction of errors in classified ads must be made before the second insertion. No allowance will be made for any insertion more than one incorrect insertion.

Special rate for yearly advertising upon request.

Publishers reserve the right to edit or reject any classified advertising copy.

SALESMAN SAM



AUTOS FOR SALE 11

BEST BARGAINS IN TOWN

See Us Before You Buy

1931 Chevrolet Sport Coach

1931 Ford Sport Coupe

1931 Ford Sport Roadster

1930 Ford Coupe

1930 Ford Coach

1930 Chrysler Sedan

1930 Oldsmobile Coupe

1930 Studebaker President Sedan

1932 Chrysler 65 Sedan

1929 Ford Coach

1929 Ford Coupe

1929 Lincoln 7-pass Sedan

We buy late model used cars for cash. If your car is not fully paid for we will assume the balance and pay you difference.

MOTOR SALES

Appleton, 210 N. Morrison St., Tel. 3532.

Neenah, 317 N. Commercial St., Tel. 500.

Waukesha, 111 N. Morrison St., Tel. 3532.

AUTO ACCESSORIES, TIRES 12

NASH—And general repairing all

parts, including Lubester Auto Service.

1931 Soldier's Sq. Ph. 5122-W.

TIRES—Some very good bargains in used tires. Hendricks-Ashauer Tire Co., 512 W. College Ave.

USED TIRES—And Tubes, at bargain prices. Zeile's General Tire Co., 130 N. Morrison St.

BUSINESS SERVICE 14

CHIMNEYS—And furnaces cleaned and repaired. Cisterns cleaned without draining. Work guaranteed. Phone 1606. Neenah, 223 Main St., Tel. R-1.

DRYING—And laundry service.

HUCKLEBERRY—Furnaces and

finishing, correctly done and reasonably priced. Phone 5796 for estimate. N. P. Sorenson Cabinet Makers, 40 years' experience. Satisfaction guaranteed.

PAINTING, DECORATING 21

PAINTING—And paper hanging. John Kersten & Son, Tel. 4021.

MOVING, TRUCKING 22

BLACK DIRT—3 yds. for \$2 delivered. Tel. 9445R.

FIREPROOF STORAGE

DAILY freight service between Chicago and Appleton.

LONG DISTANCE HAULING

Crating-shipping. Tel. 724.

Harry H. Long, 115 S. Walnut St.

ELECTRICAL SERVICE 25

DAIRY COWS—Wanted. All breeds, but all for sale. Reasonable price.

DAIRY CO.—Phone 1908.

RABBIT HOUNDS—2, beagles trained, for sale. Extra good. Tayco St., Menasha, Tel. 399.

LIVESTOCK 42

HORSES—And cows for sale. Also buy farm horses. John Dietzen, Tel. 5237.

MOVING, TRUCKING

BLACK DIRT—3 yds. for \$2 delivered. Tel. 9445R.

POULTRY AND SUPPLIES

PAINTING, DECORATING

PAINTING—And paper hanging. John Kersten & Son, Tel. 4021.

MOVING, TRUCKING

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RABBIT HOUNDS—2, beagles trained, for sale. Extra good. Tayco St., Menasha, Tel. 399.

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Thursday Evening, September 29, 1932

Electricity Is Driving Power Of Big Boats

Great Strides Made by Marine World in Utilization of Power

During the last decade the shipping industry of the world has seen electricity become a prominent factor in marine propulsion.

The use of electricity to drive ships can be attributed directly to American genius. From its first practical installation in two small river boats in 1908 the use of electricity in engine rooms has grown to a proportion large enough to be considered in the same category with steam, steam turbines and Diesel motors.

At the present time ninety commercial vessels, aggregating more than 506,000 gross tons, are driven by electrical propulsion in the trade fleets of the world. Of this total, sixty-three ships of 310,000 gross tons are owned in the United States, five of the ships being of 20,000 gross tons or over. Many first-line naval defense craft of many nations are also electrically driven.

Leads On Its Competitors
Electric propulsion is not all-electric. It is used in conjunction with two of its foremost rivals, steam turbines and Diesel motors. Its use with steam turbines is mostly on large commercial and naval craft, while the Diesel-electric installation is used on smaller pleasure craft.

Electricity is, however, the direct driving force at the engine room end of the propeller shaft. Steam, generated in oil or coal-fired boilers, drives a turbine-generator which, in turn, supplies power for electric motors attached to the propeller shaft. In the case of a Diesel-electric installation, the Diesel motor is attached to the general

Many Advantages Are Listed

The advantages of turbine-electric or Diesel-electric propulsion is extolled by steamship operators, marine engineers, naval architects and navigators throughout the world.

From the viewpoint of the passenger officials its quietness and freedom from vibration, which contributes greatly to the comfort and convenience of passengers, is its greatest asset.

The navigator praises the maneuvering qualities of an electric ship, while the operating departments of lines employing electric vessels are attracted by the fuel economies.

Marine engineers and naval architects, with a more technical view, list numerous advantages.

From a paper read recently before the Society of Naval Architects and Marine Engineers and

Electricity Boon to Those Who Like Toast

Of course one can still make toast, as in past decades, by holding the bread over a fire or a gas flame. Or one can make it on a hot stove or over a fire.

One gets nearly toasted himself by some of these methods, especially in the summer time.

But 39 out of every 100 wired homes in the United States today use electricity for toast making, choosing from scores of models made by scores of manufacturers.

For the persons who have difficulty getting the toast out of the toaster before it begins to blacken there are, of course, the automatic toasters which care for the problem themselves.

Prepared by Eskil Berg, assistant consulting engineer of the General Electric Company, which has played a prominent role in electric installation, and Charles F. Bailey, engineer director of the New York Shipbuilding and Drydock Company, which concern has built some of the largest electric liners in the world, the following advantages are listed.

(a) The lack of propeller race.
(b) Since the prime movers (either turbine generators or Diesel generators) are not connected directly to the propeller shafts, the disabling of one or more of these does not vitally impair the operation of the ship, as all propulsion motors may be run from the remaining generators or from any one of them.

(c) Even with reduced power, with some of the prime movers idle, a high efficiency can be obtained from those still in service as they would be operated near rated capacity.

(d) The flexibility in regard to the location of machinery assists greatly in distributing of weights for proper trim of the vessel.

Saves On Stem Piping

(e) The main turbines and generators can be located near the boilers which reduces the length of steam piping with consequent saving in losses, space, weight, cost and complication.

(f) Location of the driving motors aft avoids long propeller shafts, some of which would probably require to be run through the boiler rooms.

(g) The main turbines are always run in the same direction. Since there is, therefore, no reversing element in the turbine, the losses due to windage are eliminated and there are no sudden temperature changes in the turbines. Weight and spaces are also saved. (The reversing element is also important in the eyes of navigators. In an emergency, the propellers can be thrown into full speed astern in an instant as the electric motors are wired to run either clockwise or counter-clockwise.)

(h) Most notable is the reduction of noise and vibration. This is partly due to the separation of the

Turn to page 20 col. 1

Mills Says Hoover Has Cleared Way Toward Recovery

"Mastered Forces of Destruction," He Tells Michigan Republicans

Detroit — (P) — Ogden L. Mills, secretary of the treasury, told Michigan Republicans in their state convention today that President Hoover has mastered "the forces of destruction, has laid the foundation for recovery, and has earned the right to complete the task of reconstruction."

Describing what he referred to as "the second phase of the depression," Secretary Mills said that "but for the series of events which began in the late spring of 1932 it is not an unreasonable assumption that recovery from our depression might well have begun many months ago."

This "second phase of the depression," he said, "infinitely more severe and dangerous than anything we had yet encountered began in Europe," where "the destructive consequences" of the World War "showed themselves unmistakably at last."

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(h) Most notable is the reduction of noise and vibration. This is partly due to the separation of the

nominee only once, in discussing the Reconstruction Finance corporation.

"Governor Roosevelt," he said, "through loose and unfounded charges which he has made against the Reconstruction Finance corporation has created misunderstanding as to the character of the great services that have been rendered. He said that the Reconstruction Finance corporation benefits only the great city banks and other large institutions. The contrary is true. The great majority of the banks which have borrowed from the corporation are located in small towns."

"America," Secretary Mills said, "has had more popular presidents, presidents better versed in the party arts of politics; presidents better able to dramatize themselves and their actions; but America has had no president who acted more swiftly, with sure decision, achieved more, and in the face of overwhelming danger, where failure meant nation-wide disaster, more fully measured up to the requirements of leadership than Herbert Hoover."

The cars were registered to Northport and Glendale, N. Y. men, and the police said they wanted to question the occupants as to why they had received reports that they had acted suspiciously near the Thayer home Monday night or early Tuesday morning.

Investigation by state and federal authorities turned today toward Italy. They sought information concerning a man who was with Nicolo Sacco and Bartholomeo Vanzetti, who were sentenced to death by Judge Thayer, on the day of the slaying of a Braintree watchman, the crime which led up to the now famous Sacco-Vanzetti case.

The man sought disappeared from Braintree on the day of the slaying and despite nation-wide efforts no trace of him was found until recently when he was located in a prison in Italy.

The authorities believe the man was released soon after he was located in the prison and they are now anxious to find him in the hope that he may reveal some information in connection with the Thayer case.

The Worcester police continued their general investigation of the bombing while the state police gave their efforts to a checkup on

Two Automobiles Sought in Thayer Bombing Mystery

Police Seek to Question Occupants—Seen Near Scene of Outrage

Worcester, Mass. — (P) — Police throughout the country today were on the watch for two New York automobiles, the occupants of which Worcester police believed might help in the investigation of the bombing Tuesday of the home of Judge Webster Thayer.

The skull, which belongs to the hawk family, reveals that these birds were real conservatives in the process of evolution. The skull is 60,000,000 years old, but shows

the thefts of dynamite in recent months. Experts have definitely determined that the bomb which partially wrecked the judge's home was made up of dynamite and was set off by a black powder fuse.

Judge Thayer spent the night at the home of a neighbor, where he has been a guest since the explosion, while his wife remained a patient at Memorial hospital. She is recovering from cuts and bruises received in the blast.

Among them were "dwarf" camels, which stood only two or

three feet high, the size of a modern baby camel, giant pigs far larger than any modern pig, and tiny hornless deer only two feet tall with leg bones more slender than a lead pencil.

Thirty-seven skeletons of the little three-toed horse, ancestor of the modern horse, were found by Mr. Gilmore. The horses, like the small camels, once were plentiful in America but later disappeared from this part of the world.

The expedition also brought back

11 skulls and one partially-com-

plete skeleton of the famous sabre-

toothed cat. It was the size of a

large lion and its sabre teeth were

six inches long. The big cat was

probably the most-feared animal

of 60,000,000 years ago and pre-

sumed prospered or a plentiful

diet of the small, weak animals.

Mrs. Paul Wilke, 732 E Franklin, submitted to an operation at St. Elizabeth hospital Tuesday.

Wis. Best Old Time Dance Band. Featuring American, German, Polish, Bohemian at Greenville Pavilion, Fri. nite.

Many Rare Fossils are Found by Scientists

Washington — (P) — The skull of a bird whose family might well have invented the slogan "what was good enough for grandpa is good enough for me" was added today to the story of evolution by the Smithsonian institution.

The skull, which belongs to the hawk family, reveals that these birds were real conservatives in the process of evolution. The skull is 60,000,000 years old, but shows

that in all that time hawks have changed very little.

Discovery of the skull is considered an important addition to knowledge of the distant past, for fossil remains of birds are much more rare than bones of extinct animals which lived at the same time.

The skull and a lower jaw of the same type of bird were brought to their final roosting place at the Smithsonian by Charles W. Gilmore after a summer of fossil-hunting in Nebraska, South Dakota and Wyoming.

Bones of many extinct animals, which would comprise the strangest zoo in America could they be brought back to life, were unearthed by the expedition. Some of them once roamed the west in enormous herds much as did the buffalo in later times.

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three feet high, the size of a modern baby camel, giant pigs far larger than any modern pig, and tiny hornless deer only two feet tall with leg bones more slender than a lead pencil.

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APPLETON POST-CRESCENT

Electricity Is Driving Power Of Big Boats**Great Strides Made by Marine World in Utilization of Power**

(Continued from Page 18)

propeller shaft from the prime mover and to the cushioning effect between the motor stators and the rotor through the motor air gap.

(D) Each pair of propelling motors can be readily placed in separate water-tight compartments or each motor can thus be isolated.

(E) In a large ship there is small likelihood of the propellers coming out of water due to pitching, but still it is reasonable to expect that higher speed under heavy sea conditions could be safely maintained with electric drive than with other drives.

(F) Such an arrangement of machinery permits excellent ventilation and tends to a cool engine room, a more contented crew and less congestion.

The growth of electric propulsion in the United States, both on commercial vessels and United States Navy craft, has been rapid and remarkable.

In 1908 the first electric drive was installed in two Chicago fireboats. The first large electric drive was built into the United States Navy collier Juniper in 1913, which in 1922 was converted to an airplane carrier and renamed the Langley.

William LeRoy Emmett, an engineer of the General Electric Company, was directly responsible for the installation on the Juniper, and to him goes the honor of pioneering and aiding in the development of electrical propulsion from that time to the present.

In 1927 and 1928 the United States Navy had completed the aircraft carriers Lexington and Saratoga, respectively, which were the forerunners of the large fleet of electric ships. From the operation of these two ships in service was gathered a mass of statistics which was of benefit to the installation of electric propulsion in other vessels. One of the outstanding features of the Lexington and Saratoga is their great speed. On one trip one of the vessels made thirty-five knots, which was considered remarkable in view of the tremendous weight of the armored craft.

The use of electric propulsion in the American merchant marine was inaugurated by the Panama Pacific Line when, in 1927, 1928 and 1929, they had built the turbo-electric liners California, Virginia and Pennsylvania, respectively. The advent of these ships in the company's New York-San Francisco passenger and freight service was viewed with

interest by the shipping and affiliated industries throughout the world.

Vibration Test Successful

Their proved success in service has greatly increased the popularity of electric propulsion. To illustrate the lack of vibration on the California, the first of the trio to be completed, an official of the Panama Pacific Line on a trial trip of the ship, set a glass of water, filled almost to the brim, on the aft rail of the vessel while under way. The action of the ship did not spill the water.

The Grace Line followed the Panama Pacific by building the turbo-electric liner Santa Clara for its service from New York to Valparaiso via intermediate ports on the west coast of South America. The installation of electric propulsion in the Santa Clara gave proof of the remarkable maneuvering qualities of that particular form of drive. On its run the Santa Clara is called upon to enter various small harbors with smaller channels, which calls for the ship to answer the rudder and engines almost instantly.

Upon the completion of her first trip, the ship's captain had nothing but praise for his vessel's performance.

The liners Morro Castle and Orient, for the Ward Line, were the next two liners built with electric drive. These vessels were entered in the company's New York-Havana-Vera Cruz service.

Dollar Line Uses New Power

After viewing the performances of the pioneers in the electric propulsion installation, the Dollar Line decided to adopt this method for its large liners. President Hoover and President Coolidge, while entering in the company's New York-Pacific Coast-Far East passenger and freight service last year.

The Westinghouse Electric and Manufacturing Company, in addition to installing electric propulsion on many other liners, equipped the President Coolidge, while the President Hoover's propulsion machinery was installed by the General Electric.

Probably the largest single order for new liners, all of which are propelled by turbo-electric drive, was placed by the United Fruit Company last year. Six new electric sister ships were ordered from two shipyards for the company's services from New York to Costa Rica and from San Francisco to the Panama Canal. Five of the ships, the Talamancas, Chiriqui, Quiriqua, Veragua and Antigua, are in service, while the sixth, the Peten, will enter service early next year.

In addition to the large fleet of commercial vessels, the largest American-built pleasure yacht, J. P. Morgan's new Corsair, is also propelled by turbo-electric machinery.

The Corsair was built by the Bath Iron Works, at Bath, Me., in 1930 and on her trials off Rockland, Me., attained a speed of 18.15 knots.

The largest Diesel-electric pleasure yacht in this country is the Felicia, owned by Senator Jesse H. Metcalf, of Rhode Island, which was also built at the Bath shipyard last year.

The first installation of electric propulsion in a United States first-line battleship was in the New

Over Million in Dry Reform Body**Women's Group for Prohibition Reform Began With 17 in 1929**

Minneapolis—(P) An enrollment of 1,152,000 members in the Women's Organization for National Prohibition Reform was claimed today by Mrs. Charles H. Sabin of New York to the executive committee of the group which was formed by 17 women in 1929.

She told the committee that a majority of the members have been added in the last year, and that this clearly indicates the direction from which opposition to the 18th amendment is coming in increasing force from women who have lost their respect for it and want it repealed.

She said the group now has a larger membership in many states than the veteran supporters of prohibition, the Women's Christian Temperance Union.

"The reason is easy to understand," Mrs. Sabin said. "We are now the party of temperance, the W. C. T. U. has become the party of intolerance. Temperance is and always will be the women's cause. But temperance cannot be insured merely by preempting a claim upon the word."

The committee met to discuss plans for giving active support in every state to candidates for congress who are in favor of "outright repeal" of the amendment and who will support a program for returning control of liquor to the states.

Thirty-eight states already have legislation providing for liquor control which would become effective in event of repeal. Jouett Shouse, president of the Association Against the Prohibition Amendment, said last night addressing a mass meeting in St. Paul with Mrs. Sabin and Ralph M. Shaw of Chicago.

Mexico in 1918. It has been used by all of the battleships subsequently built in the United States.

Foreign Owners' Endorse It

Unwritten praise of electric propulsion is contained in installation effected or being effected in foreign-owned ships. Although the growth of electrical propulsion abroad does not equal its usage here, some of the finest foreign vessels use it.

A step which is viewed as most important by the shipping industry was announced recently by the French Line. It was decided that turbo-electric propulsion would be used to drive the company's new super-liner, now under construction at St. Nazaire, between Havre and New York. Inasmuch as the new French super-liner will enter the North Atlantic service with the determination to wrest the trans-Atlantic speed laurels from the North German Lloyd Liners Europa and Bremen, the adoption of

turbo-electric propulsion for her engine room is most complimentary to the American engineers responsible for its development.

The first French commercial liner to be propelled by electricity was the turbo-electric cabin liner Champlain of the French Line, which made her initial Havre-New York trip last June. She was also built at the Penhoet ship-yard at St. Nazaire, where the big super-liner is now under construction.

New Battle Is On

Great Britain has also adopted turbo-electric propulsion in some of her fine liners. Most important of the installations were those on the Peninsular & Oriental Liners Viceroy of India, Strathnaver and Strathaird and the Rangatira of the Union Steamship Company of New Zealand as well as the Furness and Bermuda Liners Monarch of Bermuda and Queen of Bermuda, the former now in service between New York and Bermuda and the

Queen nearing completion in England.

The battle is on again. Just as steam supplanted sail on the ocean trade routes some fifty years ago, electrical propulsion now is making headway against steam and crude oil-driven motors as an outstanding method of driving ships.

Curtis Carries His**Campaign to Oklahoma**

Oklahoma City—(P) Vice President Curtis brings his campaign for re-election of the Republican ticket to Oklahoma today.

Opening with a speech tonight at Enid, Curtis is booked for speeches at Alva tomorrow afternoon, at Ponca City tomorrow night, at Pawhuska Saturday morning and at Muskogee Saturday afternoon.

Announcement that Secretary of War Patrick J. Hurley will return to his native Oklahoma for nine

campaign speeches in two days was made by state Republican headquarters here. Hurley will travel to Lawton and Oct. 12 at Hugo, Atoka (two appearances), E 1 Reno and Ada and McAlester.

by airplane to fill his heavy schedule, which lists speeches Oct. 11 at Chickasha, Oklahoma City

To the pioneer spirit which created in Appleton the first commercial hydro-electric plant in the world, we pay our sincerest respects.

To the Wisconsin Michigan Power Company and the Wisconsin Utilities Association, our congratulations upon the ceremonies in which they take part tomorrow.

John P. Dierich
INTERIOR DECORATIONS and FURNISHINGS
125 East College Avenue

Appleton

Wisconsin

Cooler days bring new needs for warm outdoor clothes

Men's Turtle Neck Sweaters

are new, comfortable to wear and a real value at

\$2.69



All Wool
Sizes 36 to 42

Other Practical, Good-Looking Styles, \$1.95 to \$3.50



Boys Like These Sweaters

And Mothers Like the Moderate Prices

98c, \$1.59 to \$2.95

Slip one on over a clean shirt or blouse and the boy is well dressed for school. Plain colors are best this year with contrasting color at the neck and sleeves. They are priced at 98c to \$2.95 each.

Boys' Sport Vests, 79c
of Two-tone Suede Cloth

The Popular Kossok Kote

For Boys Is Here
In a New Style

\$2.95

Every Boy Wants One

It's a snappy coat that a boy will be proud of. In combinations of brown and tan, blue and tan, green and tan, maroon and tan corduroy. Deep slit pockets and buckles to adjust the size at the waist. \$2.95.

—Downstairs—

KIMBERLY-CLARK CORPORATION

Extends
Congratulations

to
Wisconsin Michigan Power Company

and

Wisconsin Utilities Association

upon the celebration of this important event in the history of electrical development

THE PETTIBONE-PEABODY CO.

APPLETON, WISCONSIN, THURSDAY, SEPTEMBER 29, 1932

Fiftieth Anniversary OF THE World's First Hydro-Electric Central Station

APPLETON, WISCONSIN
SEPT. 30, 1932

ELECTRICAL INDUSTRY CELEBRATES

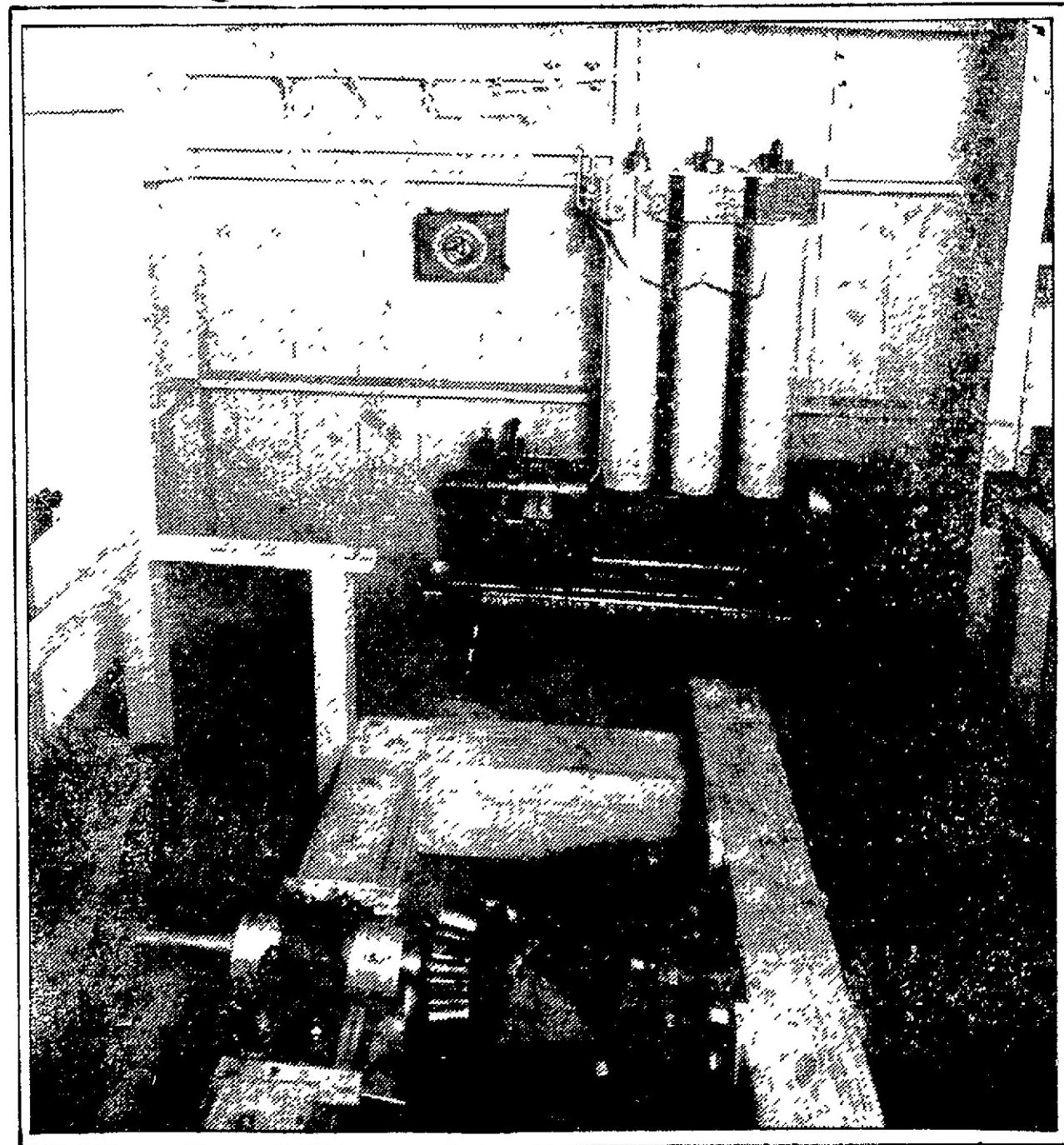
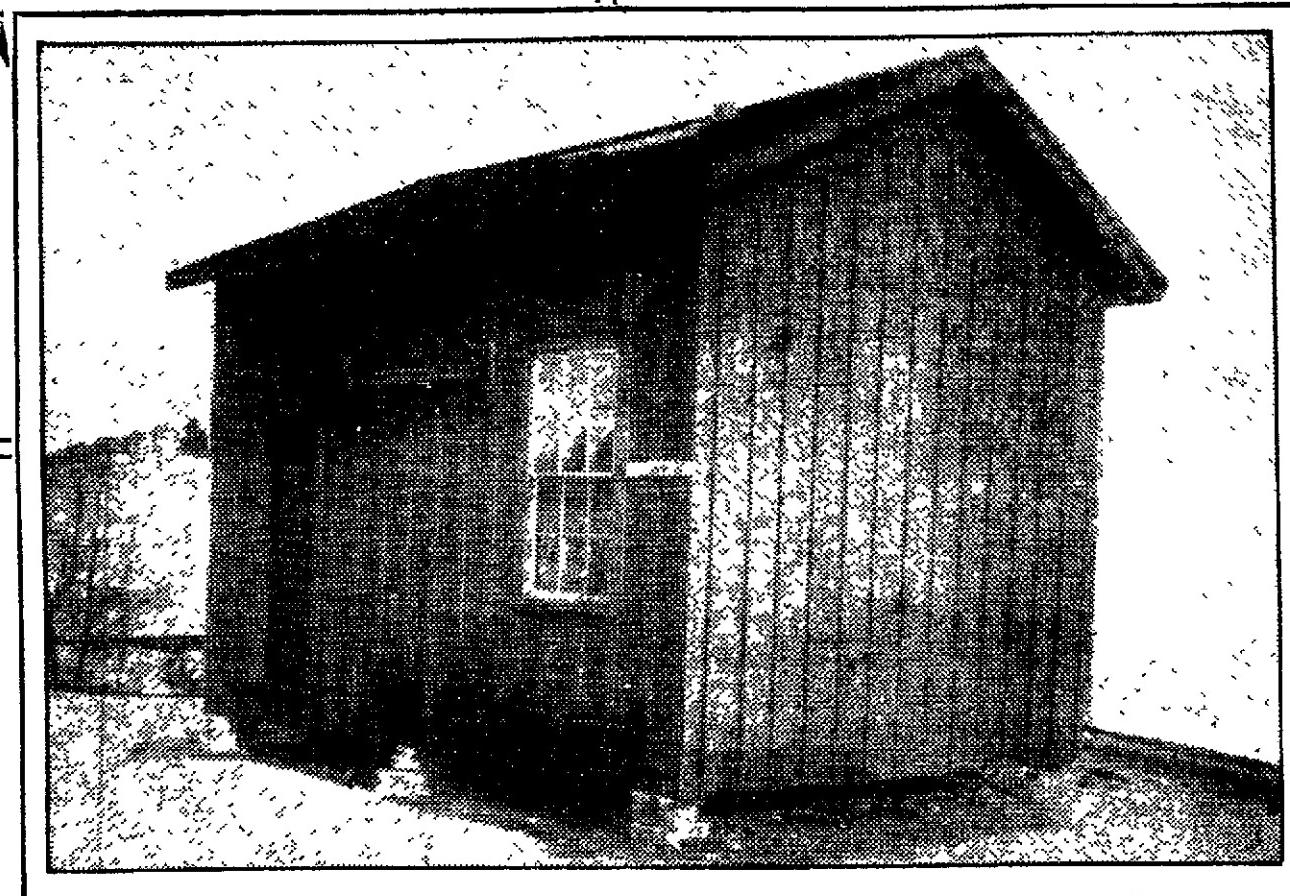
A half century has elapsed since Sept. 30, 1882, when the first hydro-electric generating station in all the world was placed in operation in the then backwoods city of Appleton. Tomorrow the leaders of the giant industry that developed from this insignificant start will gather in the replica of the building pictured above, the world's first hydro-electric central station, and with proper ceremony will throw the switch on the dynamo pictured at the right and will re-live those thrilling days of fifty years ago. For tomorrow is the golden jubilee of electricity, the beginning of a new epoch in civilization.

Appleton is happy indeed to have so prominent a place in the history of electricity and joins with the electrical industry in paying tribute to the pioneers, past and present, who developed this giant from the infant born here a half century ago.

1882

••

1932



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(Continued from Page 19)

propeller shaft from the prime mover and to the cushioning effect between the motor stators and the rotor through the motor air gap.

(j) Each pair of propelling motors can be readily placed in separate water-tight compartments or each motor can thus be isolated.

(k) In a large ship there is small likelihood of the propellers coming out of water due to pitching, but still it is reasonable to expect that higher speed under heavy sea conditions could be safely maintained with electric drive than with other drives.

(l) Such an arrangement of machinery permits excellent ventilation and tends to a cool engine room, a more contented crew and less congestion.

The growth of electric propulsion in the United States, both on commercial vessels and United States Navy craft, has been rapid and remarkable. In 1908 the first electric drive was installed in two Chicago fireboats. The first large electric drive was built into the United States Navy collier Juniper in 1913, which in 1922 was converted to an airplane carrier and renamed the Langley.

William LeRoy Emmett, an engineer of the General Electric Company, was directly responsible for the installation on the Juniper, and to him goes the honor of pioneering and aiding in the development of electrical propulsion from that time to the present.

In 1927 and 1928 the United States Navy had completed the aircraft carriers Lexington and Saratoga, respectively, which were the forerunners of the large fleet of electric ships. From the operation of these two ships in service was gathered a mass of statistics which was of benefit to the installation of electric propulsion in other vessels. One of the outstanding features of the Lexington and Saratoga is their great speed. On one trip one of the vessels made thirty-five knots, which was considered remarkable in view of the tremendous weight of the armored craft.

The use of electric propulsion in the American merchant marine was inaugurated by the Panama Pacific Line when, in 1927, 1928 and 1929, they had built the turbo-electric liners California, Virginia and Pennsylvania, respectively. The advent of these ships in the company's New York-San Francisco passenger and freight service was viewed with

interest by the shipping and affiliated industries throughout the world.

Vibration Test Successful

Their proved success in service has greatly increased the popularity of electric propulsion. To illustrate the lack of vibration on the California, the first of the trio to be completed, an official of the Panama Pacific Line on a trial trip of the ship, set a glass of water, filled almost to the brim, on the tariff of the vessel while under way. The action of the ship did not spill the water.

The Grace Line followed the Panama Pacific by building the turbo-electric liner Santa Clara for its service from New York to Valparaíso via intermediate ports on the west coast of South America. The installation of electric propulsion in the Santa Clara gave proof of the remarkable maneuvering qualities of that particular form of drive. On its run the Santa Clara is called upon to enter various small harbors with smaller channels, which calls for the ship to answer the rudder and engines almost instantly. Upon the completion of her first trip, the ship's captain had nothing but praise for his vessel's performance.

The liners Morro Castle and Orient, for the Ward Line, were the next two liners built with electric drive. These vessels were entered in the company's New York-Havana-Vera Cruz service.

Dollar Line Uses New Power

After viewing the performances of the pioneers in the electric propulsion installation, the Dollar Line decided to adopt this method for its large liners President Hoover and President Coolidge, which were entered in the company's New York-Pacific Coast Far East passenger and freight service last year.

The Westinghouse Electric and Manufacturing Company, in addition to installing electric propulsion on many other liners, equipped the President Coolidge, while the President Hoover's propulsion machinery was installed by the General Electric.

Probably the largest single order for new liners, all of which are propelled by turbo-electric drive, was placed by the United Fruit Company last year. Six new electric sister ships were ordered from two shipyards for the company's services from New York to Costa Rica and from San Francisco to the Panama Canal. Five of the ships, the Talamanca, Chiriquí, Quiriquí, Veragua and Antigua, are in service, while the sixth, the Petén, will enter service early next year.

In addition to the large fleet of commercial vessels, the largest American-built pleasure yacht, J. P. Morgan's new Corsair, is also propelled by turbo-electric machinery. The Corsair was built by the Bath Iron Works, at Bath, Me., in 1930 and on her trials off Rockland, Me., attained a speed of 18.15 knots.

The largest Diesel-electric pleasure yacht in this country is the Felicia, owned by Senator Jesse H. Metcalf, of Rhode Island, which was also built at the Bath shipyard last year.

The first installation of electric propulsion in a United States first-line battleship was in the New

Over Million in Dry Reform Body

Women's Group for Prohibition Reform Began With 17 in 1929

Minneapolis—(P) An enrollment of 1,152,000 members in the Women's Organization for National Prohibition Reform was claimed today by Mrs. Charles H. Sabin of New York to the executive committee of the group which was formed by 17 women in 1928.

She told the committee that a majority of the members have been added in the last year and that "this clearly indicates the direction from which opposition to the 18th amendment is coming in increasing force, from women who have lost their respect for it and want it repealed."

She said the group now has a larger membership in many states than the veteran supporters of prohibition, the Women's Christian Temperance Union.

"The reason is easy to understand," Mrs. Sabin said. "We are now the party of temperance, the W. C. T. U. has become the party of intolerance. Temperance is and always will be the women's cause. But temperance cannot be insured, merely by preempting a claim upon the word."

The committee met to discuss plans for giving active support in every state to candidates for congress who are in favor of "outright repeal" of the amendment and who will support a program for returning control of liquor to the states.

Thirty-eight states already have legislation providing for liquor control which would become effective in event of repeal. Jouett Shouse, president of the Association Against the Prohibition Amendment, said last night addressing a mass meeting in St. Paul with Mrs. Sabin and Ralph M. Shaw of Chicago.

Mexico in 1918. It has been used by all of the battleships subsequently built in the United States.

Foreign Owners' Inforse It

Unwritten praise of electric propulsion is contained in installation effected or being effected in foreign-owned ships. Although the growth of electrical propulsion abroad does not equal its usage here, some of the finest foreign vessels use it.

A step which is viewed as most important by the shipping industry was announced recently by the French Line. It was decided that turbo-electric propulsion would be used to drive the company's new super-liner, now under construction at St. Nazaire, between Havre and New York. Inasmuch as the new French super-liner will enter the North Atlantic service with the determination to wrest the trans-Atlantic speed laurels from the North German Lloyd Liners Europa and Bremen, the adoption of

turbo-electric propulsion for her engine room is most complimentary to the American engineers responsible for its development.

The first French commercial liner to be propelled by electricity is the turbo-electric cabin liner Champlain of the French Line, which made her initial Havre-New York trip last June. She was also built at the Penhoet ship-yard at St. Nazaire, where the big super-liner is now under construction.

Curtis Carries His Campaign to Oklahoma

Oklahoma City—(P) Vice President Curtis brings his campaign for re-election of the Republican ticket to Oklahoma today.

Opening with a speech tonight at Enid, Curtis is booked for speeches at Alva tomorrow afternoon, at Ponca City tomorrow night, at Pawhuska Saturday morning and at Muskogee Saturday afternoon.

Announcement that Secretary of War Patrick J. Hurley will return to his native Oklahoma for nine

campaign speeches in two days was

made by state Republican head-quarters here. Hurley will travel

Lawton and Oct. 12 at Hugo (two appearances), E. 11

Ada and McAlester.

To the pioneer spirit which created in Appleton the first commercial hydro-electric plant in the world, we pay our sincerest respects.

To the Wisconsin Michigan Power Company and the Wisconsin Utilities Association, our congratulations upon the ceremonies in which they take part tomorrow.

John P. Diderich

INTERIOR DECORATIONS and FURNISHINGS
125 East College Avenue

Wisconsin

Appleton

Cooler days bring new needs for warm outdoor clothes

Men's Turtle Neck Sweaters

are new, comfortable to wear and a real value at

\$2.69

White, Green,

Black, Brown



All Wool

Sizes 36 to 42

Boys Like These
Sweaters

And Mothers Like the
Moderate Prices

98c, \$1.59 to \$2.95

Slip one on over a clean shirt or blouse and the boy is well dressed for school. Plain colors are best this year with contrasting color at the neck and sleeves. They are priced at 98c to \$2.95 each.

Boys' Sport Vests, 79c

Of Two-tone Suede Cloth

The Popular
Kossok Kote

For Boys Is Here
In a New Style

\$2.95

Every Boy Wants One

It's a snappy coat that boy will be proud of. In combinations of brown and tan, blue and tan, green and tan, maroon and tan corduroy. Deep slit pockets and buckles to adjust the size at the waist. \$2.95.

—Downstairs—

THE PETTIBONE-PEABODY CO.

KIMBERLY-CLARK CORPORATION

Extends
Congratulations

to
**Wisconsin Michigan
Power Company**

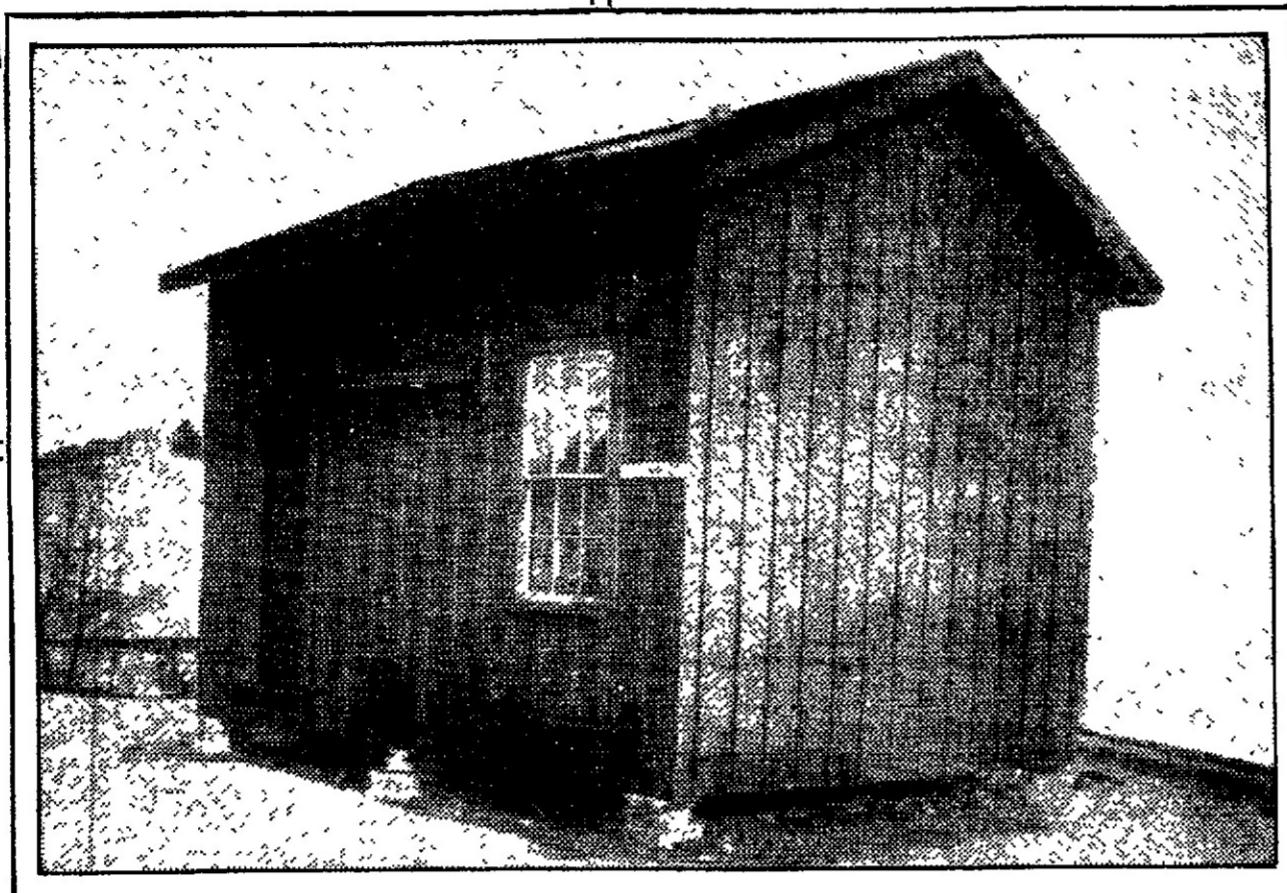
and

**Wisconsin Utilities
Association**

upon the celebration of this
important event in the
history of electrical development

APPLETON, WISCONSIN, THURSDAY, SEPTEMBER 29, 1932

Fiftieth Anniversary OF THE World's First Hydro-Electric Central Station

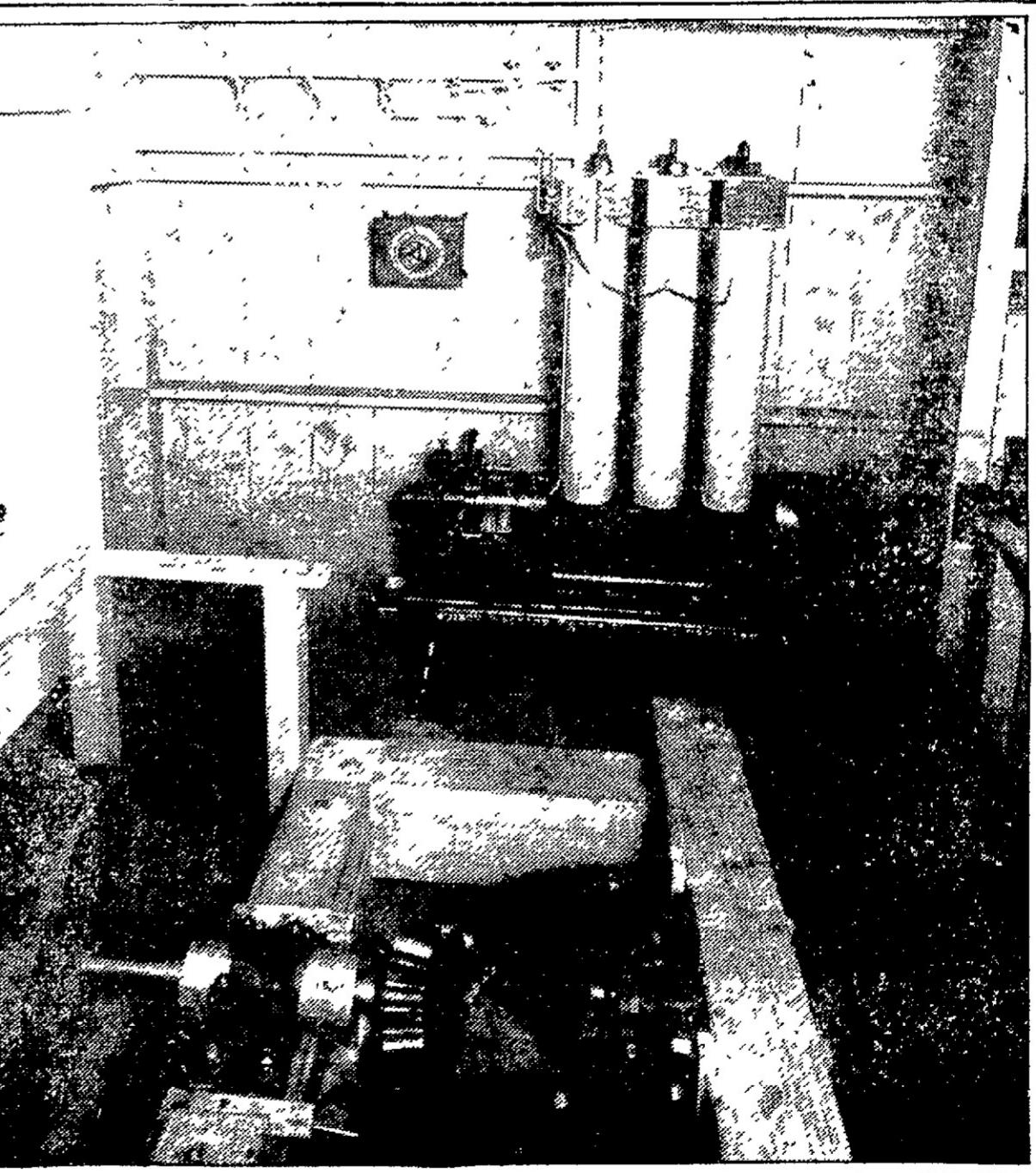


ELECTRICAL INDUSTRY CELEBRATES

A half century has elapsed since Sept. 30, 1882, when the first hydro-electric generating station in all the world was placed in operation in the then backwoods city of Appleton. Tomorrow the leaders of the giant industry that developed from this insignificant start will gather in the replica of the building pictured above, the world's first hydro-electric central station, and with proper ceremony will throw the switch on the dynamo pictured at the right and will re-live those thrilling days of fifty years ago. For tomorrow is the golden jubilee of electricity, the beginning of a new epoch in civilization.

Appleton is happy indeed to have so prominent a place in the history of electricity and joins with the electrical industry in paying tribute to the pioneers, past and present, who developed this giant from the infant born here a half century ago.

1882 :: 1932



Ask Public to Dedication of Replica Plant

Leaders in Electrical Industry Come Here For Ceremonies

Standing over obsolete street car tracks, under modern arc lights, and within 1,200 feet of one of the highly developed electric light plants of the modern age, Appleton citizens will witness the operation of the first commercial hydroelectric plant in the world Friday evening. They will see, in replica, the same water wheel, the same dynamo, the same wires that 50 years ago carried electric power to those first few electric bulbs scattered here and there in Appleton. They will see the same men who way back on Sept. 30, 1882, scratched their heads and furrowed their brows as they tried to figure out which wires should go where to bring about the contact that would illuminate the bulbs. They may even see the same expressions on their faces as the first dull light begins to glow in the bulbs in the power plant.

The replica of that first hydroelectric plant, put in operation in this city on Sept. 30, 1882, will be dedicated at a public ceremony on S. Oneida-st, at 8 o'clock Friday evening, as the final feature of a golden jubilee celebration, combined with the annual meeting of the electric section of the Wisconsin Utilities association.

Block Off Street

S. Oneida-st from the Northern Boiler works to the bridge will be blocked off that evening so the public can congregate around the replica plant. Speeches will be made from the platform of the plant, and after the ceremony is completed the public will be permitted to walk around the building. The diminutive size of the plant provides a public inspection of the interior of it.

A. K. Ellis, vice president and general manager of the Wisconsin Michigan Power company, will serve as master of ceremonies. F. J. Sensenbrenner will give the principal address, speaking on the Development of the Fox River Valley. Mayor John Goodland, Jr., will give a brief talk, and during the dedication A. Engelhard, of the advertising department of the North American company, will explain the operation of the plant. Mr. Engelhard is known to the public as "Watts and Volts," the announcer on electrical programs over WTMJ. The dynamo will be put into operation by William Kurz, who was present the day the first plant was started. Music will be furnished by the Wisconsin Gas and Electric Company Employee Band of Racine, and the program will conclude with the presentation of Mr. Kurz, Edward O'Keefe, and Al Landstadt, pioneers of the electrical industry in Appleton.

Prior to the public meeting there will be a dinner for members of Wisconsin Utilities association and other guests of the power company in the service building on S. Oneida-st. E. J. Steinberg, president of the Wisconsin Utilities association, will be the toastmaster, and the invocation will be given by Dr. J. A. Holmes, pastor of the Methodist church.

Mr. Ellis will speak on the development of the power company, S. B. Way, president of the company, will pay a tribute to local pioneers who started the enterprise, and Edwin Grulh, president of the North American company, will offer a tribute to Thomas A. Edison.

Hold Convention Here

During the day the Wisconsin Utilities association will hold its annual meeting here. Registration will take place between 9 o'clock and 9:30 at the Conway hotel, and the first session will open in the Crystal room at 9:30. W. E. Schubert, chief engineer of the Wisconsin Michigan Power company, and chairman of the electrical section of the utilities association, will give the opening address.

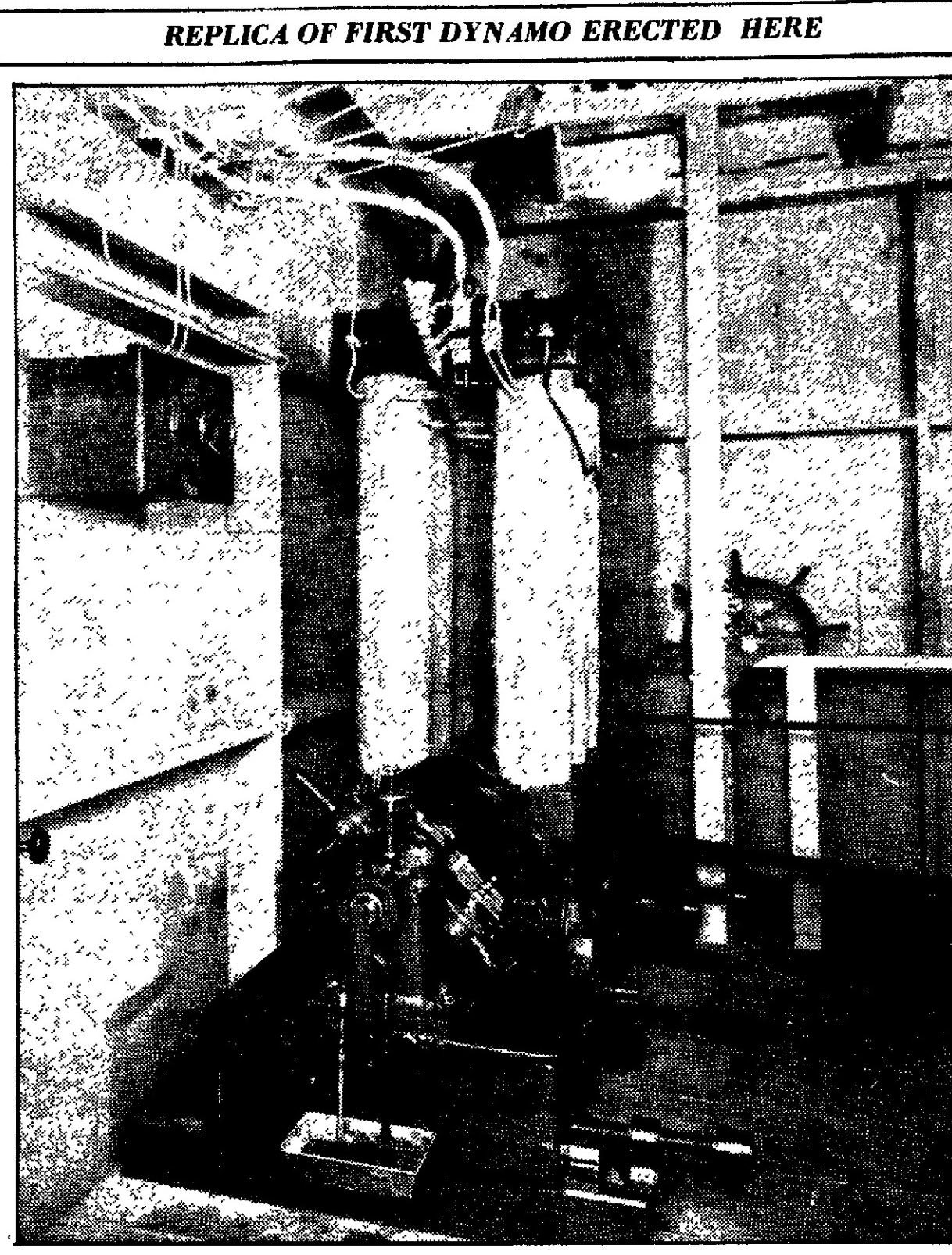
Addresses scheduled for the morning are Recent Cable Developments by W. E. Hazelton of the General Electric company, Manufacturers' Viewpoint on Elimination of Radio Interference by K. A. Hawley of the Locke Insulator corporation, and Surge Proof Transformers by H. T. Francis of the Westinghouse Electric and Manufacturing company.

A. G. Carson of the Wisconsin Public Service corporation, chairman of the nominating committee, will give the committee's report, which will be followed by the election of officers and a brief presentation of committee reports.

The speaker at the luncheon at noon in the Crystal room will be L. B. James of the General Electric company's incandescent lamp department. Mr. James, who works with one of the world's most prominent illuminating engineers, Dr. M. Luckisch, in the General Electric laboratories at Nela Park, Cleveland, Ohio, will speak on Developments in the Lighting Field. A number of displays will be used to illustrate his talk.

In the afternoon the association members will make inspection trips to the new printing plant of the Appleton Post-Crescent, to the sites of the early electric plants in Appleton, and to the modern plants of the Wisconsin Michigan Power company. Those who do not choose to make the tour can make arrangements to play his talk.

Wives of the delegates will leave the Conway hotel at 11:30 in the morning on a trip through the city, which will be followed with a bridge luncheon at the Valley Inn Inn.



REPLICA OF FIRST DYNAMO ERECTED HERE

Electric World Joins Appleton In Celebration

Tremendous Progress Has Been Made in Last Half Century

The entire electric light and power industry of the United States is joining hands with Appleton and Wisconsin in celebrating the golden jubilee of the first hydro-electric plant in the world, for this is really the birth of this great industry. On Sept. 30, 1882, the first dynamo ever driven by waterpower began turning over and generating the current which turned night into day through the medium of incandescent lights, invented only three years previously by Thomas Alva Edison.

In the half century which has passed since the opening of this first station the electric light and power industry has experienced virtually uninterrupted expansion and a growth, it may safely be said, not surpassed in the industrial and corporate history of the world.

Events of the last few years also have furnished considerable evidence that the industry is not a fair-weather industry, but rather one that is based upon a foundation as firm as any in existence. Revenues of the electrical industry recently have shown some decline, compared with the boom period which preceded the depression, but the decrease has been small in comparison with other industries; it has added less to unemployment than any other industry it has maintained generous budgets for maintenance, new construction and additions and betterments; its invested capital has shown a steady increase each year, despite the depression, and is greater today than ever.

Effects On Individual

Far-reaching has been the effect of the developments of the electric industry in the individual's daily life. In the old steam engine days, prior to the electrical era, there was a tendency to centralize industry, and the progress of the smaller towns was retarded because of the lack of hope for much in the way of industrial activity.

Today this condition is changed for the betterment of all. In respect to the remarks of one of the leaders of the industry are enlightening:

"The tendency of the early days of steam-power development was toward centralization and congestion, but it has brought its own cure for this—the development of the steam turbine and of widespread electric transmission and general distribution of electrical energy all over the country, even to the smallest hamlet and farm. This is a promising sign of a simplified economic structure."

The importance of electricity in the home is growing steadily as well as in the manufacturing field, was eventually responsible for converting the United States from a debtor to a creditor nation. The beneficial effects that this industry has had upon the social and economic structure of the nation are so deep-rooted that it is difficult to believe that America can ever be dislodged from her present position among the nations.

Virtually every comparison made to measure her growth from one of the "younger nations" to the great industrial power and advanced general standards of living dates back to the day when Mr. Edison founded the commercial electric industry. His genius made centrally generated electric energy available to all—to industry as well as to the individual; has been the prime factor in making possible the building up of the great industrial organizations, with the mass production and wider distribution of goods at low-

Greek Philosopher Noted Electricity

History records that it was Thales, the Greek philosopher, who first recorded his observations of electrical phenomena. Thales lived 2,600 years ago. His observations had to do with the power of amber, when rubbed with cloth, to attract light objects. More than 2,500 years then elapsed before the world discovered how practically to apply this force of electricity which had been noted by Thales.

er prices with the resultant raising of our standard of living, in all of which fields American business has been a pioneer.

Industry and business in the United States consumed a total of 52,162,000,000 kilowatt hours of electrical energy for lighting and power in their operations for 1931, which represents the major portion of the current actually sold to consumers. This gives some idea of the dependence of industries upon the electric industry.

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Changed Status Of Nation

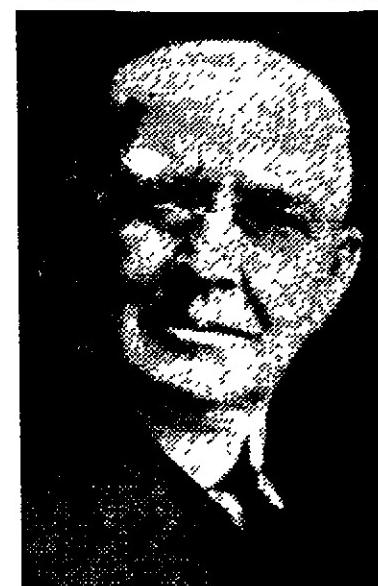
The beginning of the "electrical era" may also be characterized as the laying of the foundation of the so-called "industrial era" which was eventually responsible for converting the United States from a debtor to a creditor nation. The beneficial effects that this industry has had upon the social and economic structure of the nation are so deep-rooted that it is difficult to believe that America can ever be dislodged from her present position among the nations.

Whereas these domestic electrical appliances were few, and often considered a luxury in days gone by, today they are many and are looked upon as necessities in our present-day mode of living. There are electrical flat-irons, vacuum cleaners, washing machines, fans, toasters, percolators, socket-power radios, spare heaters, ironing machines, oil burners, refrigerators, ranges, water heaters. One does not have to draw much upon imagination to visualize the comforts and conveniences of these inventions, as compared with the not distant past. The use of these appliances and conveniences is

steadily becoming a more important factor. They accounted for more than half of the domestic consumption of electricity in 1931, the remainder being used for illumination. Domestic consumption of cur-

rent for refrigerators, ranges and

Built Plant



Ford Cooperates In Celebration

Detroit Manufacturer Loans Replica of 1st Dynamo Here

The gleam of electric light as it was produced 50 years ago with the old style carbon filament lamps will brighten the dusk of Appleton near the small, wooden building that stands along S. Oneida-st as a replica of the world's first hydroelectric station. The scene of 50 years ago will be re-enacted Friday night at the celebration and dedication of the fiftieth anniversary of the opening of the original plant.

Old timers and pioneer residents of Appleton, whose memories jog back to 1882 with ease, will remember the same small building, the very generator, and the early lamps, and even the cleats and wiring.

The replica generator and lamps similar to those placed in service in 1882 are being provided by Henry Ford. The wooden structure with its complete equipment will be nearly like the original as possible, which was built in Appleton near the same location 50 years ago. The generator in the tiny plant will be a replica of the original, and will produce light as it was first known. Lamps similar to those first used will be provided and efforts are being made to duplicate the cleats, wiring and other details of the early plant.

The generator, made in the original, will be loaned to the Wisconsin-Michigan Power Co. by Mr. Ford. This early generator is one of the unique historical exhibits in the Ford Museum at Dearborn, Mich. Permission to use the replica generator was obtained from Mr. Ford by W. E. Schubert, chief engineer, Wisconsin Michigan Power Co., Appleton, and A. L. Pond, manager, General Electric Co., Milwaukee, who visited the Ford museum.

Permission was granted by the United States government to use government land as the site for the replica of the world's first water power plant. The site is near the spot where the original plant stood 50 years ago, since the exact location is now inaccessible.

water heaters alone aggregated 6,300,000,000 kilowatt hours, a three-fold increase over consumption of 2,000,000,000 kilowatt hours in 1926. Total domestic consumption was 11,668,000,000 kilowatt hours in 1931, against 9,560,000,000 in 1922 and 2,572,000,000 in 1912.

Investment Passes 12 Billions

From a comparatively small beginning in 1882, the industry has grown steadily, and at the close of 1931 the total invested capital represented the huge investment of \$12,400,000,000 for the electric light and power branch of the public

(Turn to Page 24, Col. 4)

Electric "Eye" Takes Monotony Out of Jobs

Electrical science has done wonders for man. It has taught him how to dig and operate a Panama Canal. It has enabled him to build and equip an eighty-story skyscraper. Next it will show people how to get rid of those little vexations that continually creep into the day's work. The newest "tool," which electrical science has produced for the human race, the electronic tube, commonly called the vacuum tube, is described by Dr. Willis R. Whitney, director of the research laboratory of the General Electric Company as "a painless process of saving time."

There are many types of electronic tubes but probably that which is at present most widely in use is the phototube. People know it as the "electric eye," an apt term indeed, for its function is quite similar to that of the eye, with the great improvement that it never sleeps or even winks. It is doing valuable work in many cases in the everyday affairs of life. Undoubtedly it will find many more things to do than it has thus far. Certainly it will become, before long, altogether indispensable.

Opening Restaurant Door

In a busy restaurant in an Eastern city waitresses bearing loaded trays approach the kitchen door. Once it was a muscle tiring and irritating task to kick that door open and at the same time keep the tray balanced. Now the door opens of its own accord as soon as the waitress intercepts a beam of light falling upon a phototube which acts as the control switch of the electric door-opening mechanism.

Possibilities are endless with the phototube. It opens garage doors when the automobile's headlights shine upon it. It turns on electric signs when daylight begins to fade and turns them off again when the dawn brightens. It turns street lights on and off in the same manner. It switches on the lights of a schoolroom if the sky becomes cloudy, and daylight in the room falls off. It stops large steel-rolling mills when the shadow of the machine falls upon its supersensitive eye. It counts the cars that pass through the Holland Tunnel, and turns on the ventilating fans in the tunnel whenever the exhaust fumes from the engines of the cars create a haze, and diminish by a tiny margin the light which it normally receives.

Practically all the tasks which the phototube is at present performing are fussy tasks; things which irritate human nerves and exhaust human brains to do, or else carry such a potency of human error that exasperating reprimands sow the seed for glorious grouchiness when the workers are finally released to "take it out" on the family or the cat.

How Much Does it Cost To Use Electricity?

People often ask how much it costs to operate electric appliances in their home. The following list, compiled from actual experiences of the various companies in Wisconsin at the average city rates for normal use, offers a reliable reference chart:

Toaster, 10 slices in 20 minutes for 1 cent.

Waffle iron, 5 cents per hour, 2 waffles in eight minutes.

Chafing dish, 4 cents per hour.

Percolator, six cups in 15 minutes for 1 cent.

Fireless cooker, current for a meat dinner 3 cents.

Heating pad, 1 cent per hour.

Curling iron, 1 cent per hour.

Electric vibrator, 1 cent per hour.

Electric iron, 2½ to 4 cents per hour.

Vacuum cleaner, 1 cent per hour.

Electric fan, 1 cent per hour.

Electric heater, 6 cents per hour.

Washing machine, 2 cents per hour. A complete wash in two hours.

Dishwasher, 2 cents per hour.

Sewing machine motor, 1 cent per hour.

Used to Sort Mail Sacks

It is surprising to discover what the electric eye is capable of doing. One would hardly suppose that it could sort mail sacks, but it can and does, and thereby saves time and irritation to the mail clerks at a large railway-mail center. It also is counting stripes of mica that are fed into a machine to be pressed into insulating material, preventing the spoilage that would result from miscounting, and also preventing the censure which the operator would consequently receive from his foreman. And the electric eye is quietly counting finished parts which pass in front of it on a conveyor, thus furnishing an accurate record of work done by piece-rate employees, and putting an end to alterations that once prevailed when the count was done by human eyes which, if they miscounted, unjustly reduced the worker's pay.

As a sorter and a counter the phototube not only is surprisingly dependent but it never grows discon-

Electricity and Music Much Alike

Experimenters Started Years Ago to Adapt Electric Power to Music

Electricity and music have a striking relationship. Although electric power is measured in kilowatts and musical sounds in micro-watts, their nature is fundamentally the same.

Each is generated by oscillatory motion; electricity by the alternating direction in the flow of the electrons in a coil of wire placed in proximity to a rotating magnet, and music by the to and fro movement of the molecules in the air surrounding a vibrating string, reed or column of air in a tube.

It was soon after electric power became a practical realization that independent experimenters turned to electricity to set strings, reeds and tuning forks into vibration, essentially the principle of the motor, which converts electrical energy into mechanical energy.

Thaddeus Cahill, in 1895, completed his Telharmonium, an instrument using generators to produce alternating currents which were then transduced into sound waves, with the additional feature of transmitting the oscillations over telephone wires to remote points where the music was reproduced. Considerable financial backing was secured and sensational publicity stunts were tried—mid-day crowds heard music seemingly emanating from a manhole—yet, despite the numerous orders from hotels and resorts for this then unique service, the project of Telharmony was abandoned.

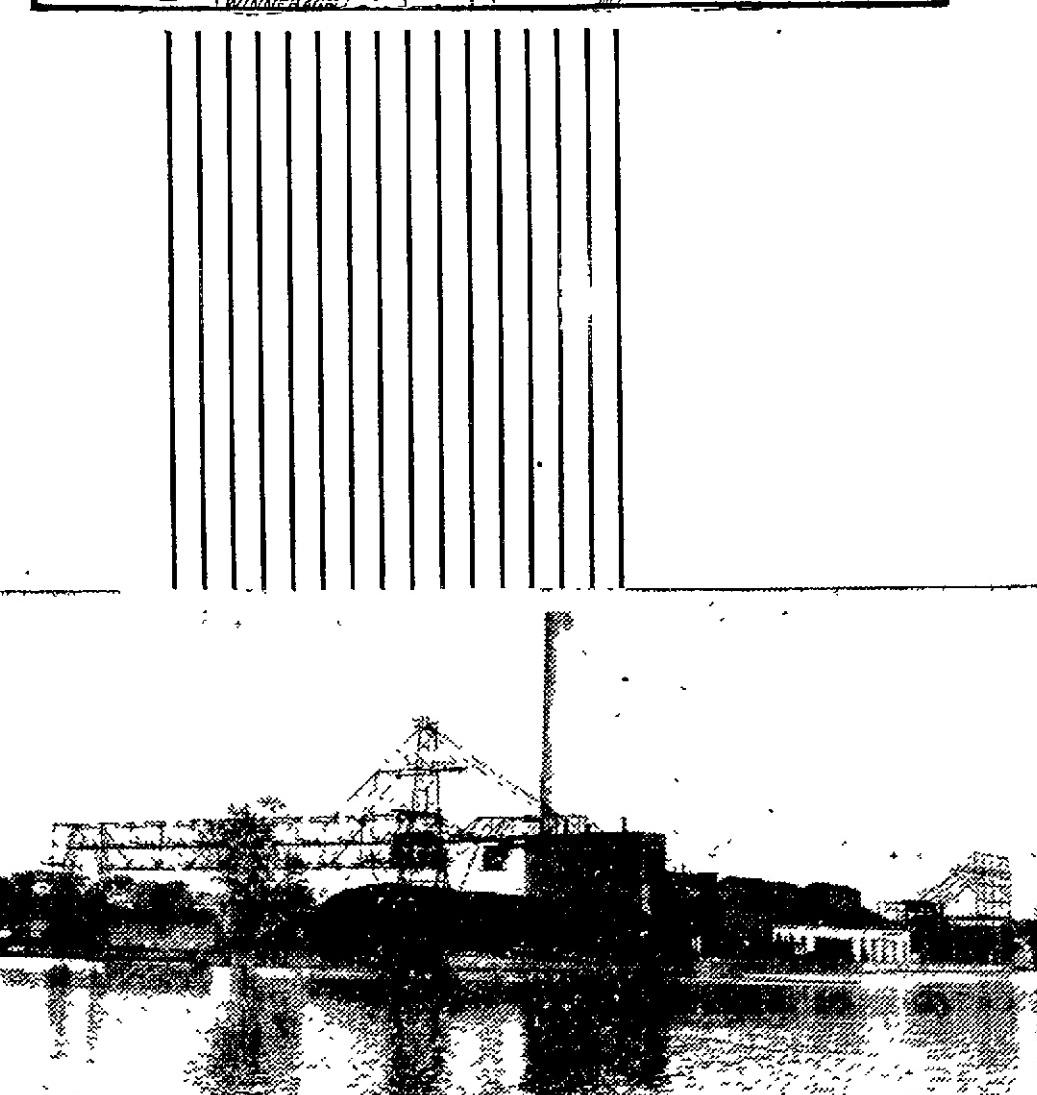
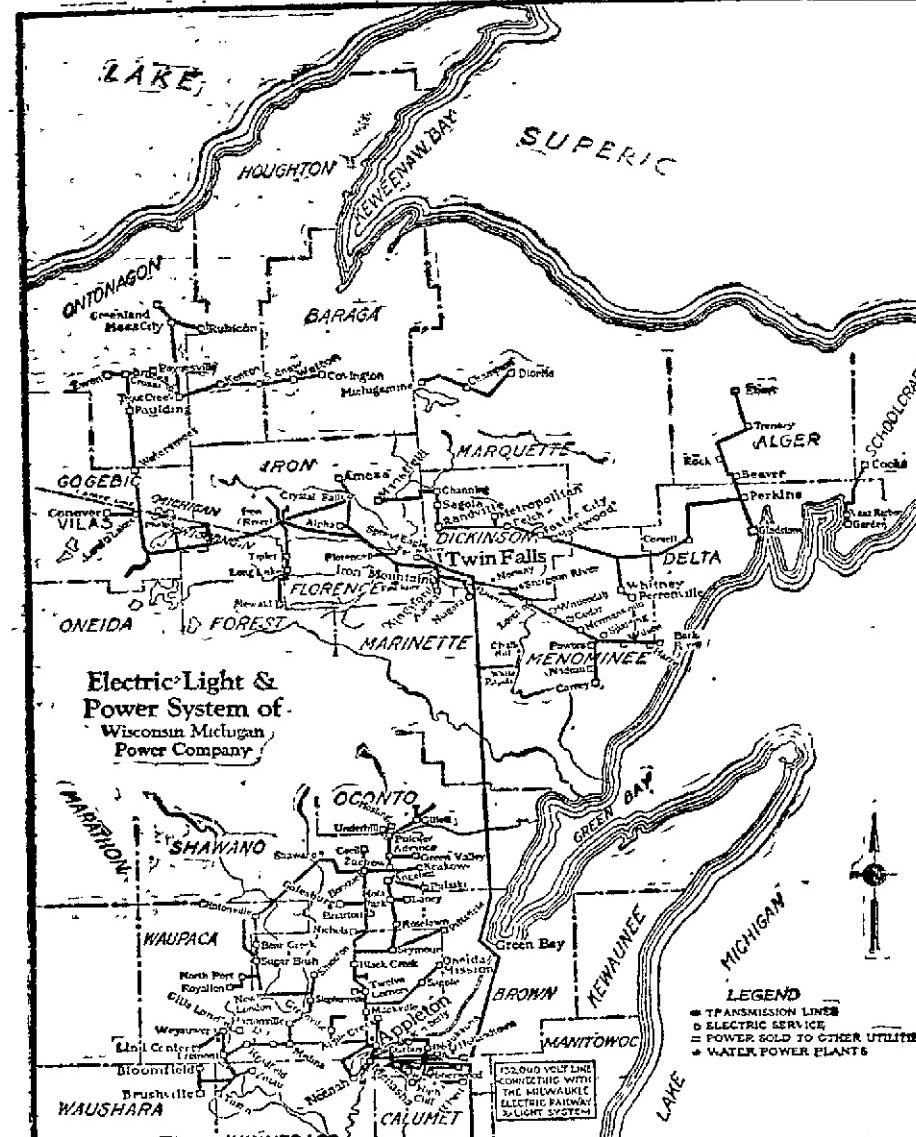
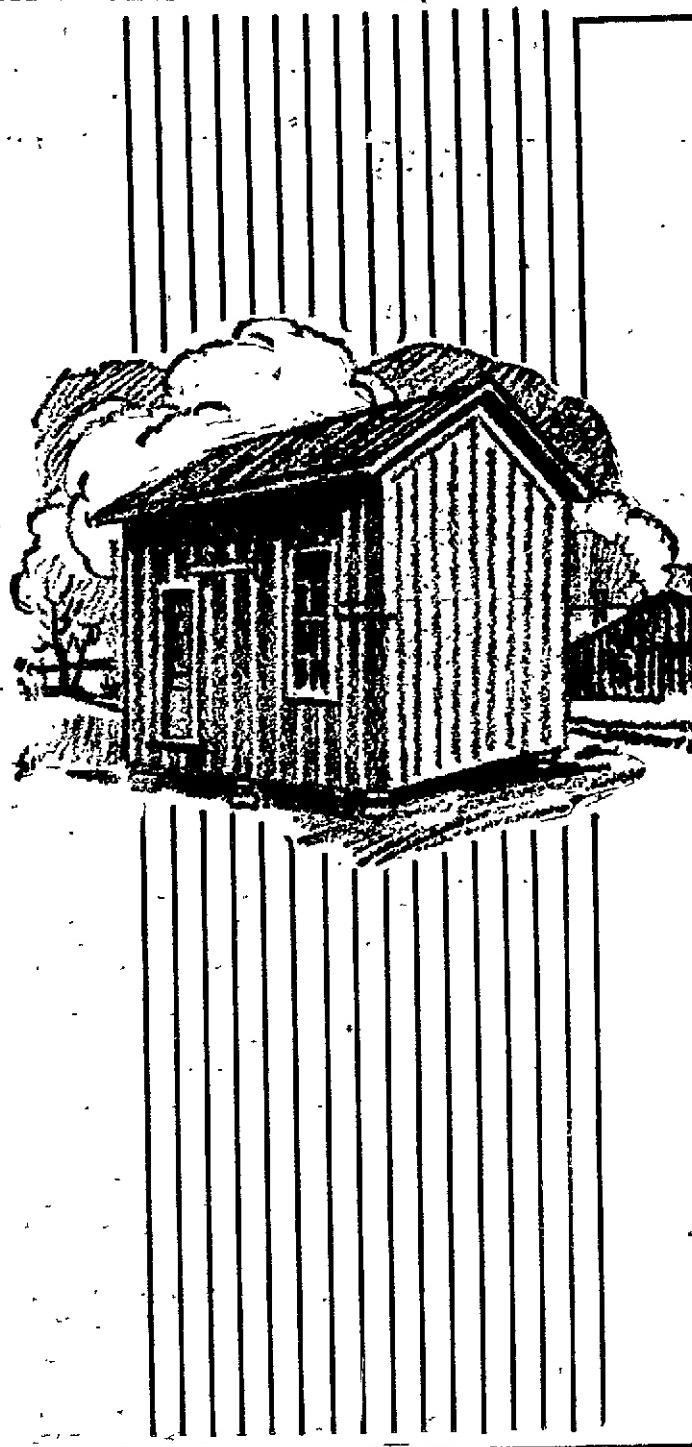
But while Cahill was assembling his instrument, Lee de Forest was observing some important phenomena in an electric valve, the audion, which was later to create the radio industry. And in 1915, when telephone engineers were making New York-to-San Francisco telephony possible through the use of the audion as an amplifier, Dr. Forest found that his radio tube could generate musical sounds when a condition of alternating current theory was satisfied.

Thereupon followed numerous applications of the vacuum tube as an oscillator and as an amplifier of photo-electric cells, neon lamps, phonograph pickups and strings and reeds when vibrating between the poles of an electromagnet.

The Cahill principle of using electrical generators for tone producers has been extended by Captain Richard H. Ranger, whose instrument has been broadcasting over WOR until recently. Following the principle of Telharmony, the electrical impulses of the Ranger tone was transmitted by wires to the radio station, where they were broadcast.

Inventors are returning to strings, reeds and tuning forks as generators of electrical waves, rather than as sound producers set into vibration by electricity, as evidenced by the work of John Hays Hammond, Jr., the Polyphon of Benjamin F. Messner, the Radio-piano of Hiller (designed for the Steinway Company in Hamburg), the developments of Nernst in association with the firms of Bechstein and Siemens, the researches of Oskar Vierling and the Heinrich Hertz Institute in Berlin.

There are about 2000 wood ties to a mile of railroad track.</p



1882—September 30—1932

Fifty years ago, the world's first hydro-electric central station was placed in operation at Appleton. It consisted of a crude, small dynamo capable of lighting only 250 sixteen candle-power carbon filament lamps. The dynamo was attached to a water wheel that also drove two pulp beaters in a paper mill. Two mills and one residence were directly connected by means of bare copper wire to the dynamo . . . Such was the beginning of the electric industry in Appleton and in the west.

Today, Wisconsin Michigan Power Company, successor to the pioneer electric company of 1882, continues to carry on, prompted by that same spirit of initiative and service which characterized the founders of the early company.

From three customers originally served at Appleton, the present electric system of Wisconsin Michigan Power Company has grown to serve a total of nearly 28,000 customers in an important and widely extended area. The combined capacity of its modern and efficient steam and hydro-electric generating stations is 37,324 kilowatts, which if employed solely for lighting purposes would light 2,650,000 modern lamps of equal intensity of the early carbon filament lamps.

But not alone in extent of territory has Wisconsin Michigan Power Company progressed. First and foremost, it has constantly endeavored to make electric service more efficient and dependable and to furnish it at so low a cost that even the most humble cottage could enjoy its benefits.

The company has continually promoted wider uses of electricity in the home, on the farm and in industry. It has introduced high grade electrical appliances and devices to relieve human labor of drudgery, to make irksome tasks lighter and to make home management more efficient and easier thereby bringing greater happiness, comfort, convenience, safety and cleanliness into the homes of its customers.

On this gala occasion, the company views with justifiable pride its record of achievement. It shall not be unmindful of the chief reasons for its growth. It shall remain firm in its conviction that its continued growth will be commensurate to the degree with which it adheres to its avowed policy of "Service First"

Wisconsin Michigan Power Company

\$7 A Week Job Launched Ellis With Utilities

Power Company's Manager In Electrical Business Nearly 45 Years

Errand boy, lineman, car barn foreman, A. K. Ellis, who started his career in the electric light business at \$7 a week, is now vice president and general manager of the Wisconsin Michigan Power company, one of the 40 or more companies of the great North American company.

Born on a farm near Lincoln, Ill., Feb. 27, 1872, Mr. Ellis, familiarly known as "Bert," attended grade school and two years of high school in Lincoln. After two years of high school he went to work as "flunkie" in the old plant of the Lincoln Water Light and Power company, a few years after the first commercial hydro-electric plant had been put into operation at Appleton. For \$7 a week he oiled machines, swept floors and threw out the cigarette butts dropped by superintendent, D. C. Turley, into the street, where they were picked up regularly every morning by an old man who lived close by.

He worked there until the old Edison General Electric company, of which John I. Beggs was superintendent, contracted to build a street railway system in Lincoln. Here his lineman job brought him 16 cents an hour, which he turned over to his mother for the support of the family of five children.

Goes To Iowa

After the Lincoln job was completed, he went to Dubuque, Iowa, where the Edison company had a contract to change the storage battery car system to an overhead trolley system. Here he worked as a lineman at 16 cents an hour. When Knox, the superintendent of the construction crew, at Dubuque was made electric engineer for the Chicago City railway company, Ellis went with him and worked under him on the construction of the trolley lines at Thirty-ninth, Forty-seventh, Sixty-first, and Sixty-third-sts. After these lines were completed he was placed in charge of the storeroom at Thirty-ninth and State-sts, from where he went into the car shops at Twenty-first and Dearborn-sts. Here he worked under a foreman named Otto Langstadt, a brother of Al Langstadt of this city. He wired cars at a salary of \$10.80 a week, out of which he bought a \$4 monthly railroad ticket to Berwyn, Ill., where his mother lived. Every morning he caught the 6:02 train to Chicago, returning at 7:15 every evening.

Then he went to work with the Nauke-Holcomb company, working under W. H. Holcomb, who later became superintendent of the Fox River Valley Electric railway company. He constructed the electric lines from W. Forty-eighth-st, terminal of the Metropolitan Elevated railroad, through Harlem and Riverside to LaGrange, Ill. Then he was made night barn foreman of the Suburban railroad, of which Holcomb had been made superintendent.

Came Here In 1898

He held that job until he came to Appleton on May 8, 1898, as barn foreman and master mechanic under Holcomb, who was then superintendant of the Fox River Valley Electric railway company. He arrived a week before the cars for the first interurban railway of the Fox River valley arrived. When they came, Ellis unloaded them from the flat cars, and succeeded in getting them on the tracks in front of the car barns on Oneida-st. However, before he could get them into the car barns, where they were to be wired and equipped with motors, it was necessary to cut off 12 feet of the building.

Two years after the first line, from Appleton to Neenah, was put in operation, Ellis had charge of the construction of a line from Appleton to Kaukauna. Shortly after the newly organized Wisconsin Traction, Light, Heat and Power company took over the Appleton Street Railway, Appleton Electric Light and Power company, and the Fox River Valley Electric Railway company, Holcomb left and Ellis took over his job, thereby raising his salary from \$67.50 a month to \$110 a month.

No White-Collar Job

Being superintendent in those days wasn't a white-collar job. Mr. Ellis had no office, just a cubby-hole for a telephone, and his days were spent in overseeing the car barns, power plant, overhead lines, motormen and conductors, and the track work. Working along in overall with the rest of the 50 men under him, he had no time for office work, which was done by William Tesch, an employee of the First National bank. Henry D. Smith, president of the bank, was manager of the company at the time.

At that time there were four interurban cars running from Neenah to Kaukauna. Edward O'Keefe and Ellis unloaded the machinery for the new power plant at the upper lock, Appleton, where the power plant now is located. In those days water wheels were used instead of the steam turbines now in operation.

The Fox River Valley Electric company became the Wisconsin Traction, Light, Heat and Power company in 1900, and in 1927 it became the Wisconsin Michigan Power company. During the period Mr. Ellis has been in charge of it the company has purchased about 40 companies in northern Wisconsin and upper Michigan.

Gets Down Town Office

All business of the Fox River Valley Electric company was transacted at the car barns on Oneida-st until it acquired the old Fox River Valley Gas and Electric company, which owned the present headquarters on College-ave. When the business office of the plant was

DIRECTS UTILITIES HERE



APPLETON POST-CRESCENT

Electric World Joins Appleton In Celebration

Tremendous Progress Has Been Made in Half Century

(Continued from Page 22)

utility industry, excluding investment in communications companies, street railways, etc. While the industry expanded steadily, its greater growth was experienced during the last three decades, or since the start of the century, at the beginning of the era of industrial expansion of the nation, following the mergers of many smaller companies into consolidations such as marked the business history of that period.

The current total of \$12,400,000 of invested capital compares with a total of \$11,100,000,000 at the close of 1929—the last boom year—a gain of \$1,300,000,000, or 11.7 per cent, during a period of the disastrous economic depression. At the close of 1922 the invested capital amounted to \$4,817,000,000, and at the end of 1902 it stood at \$2,239,622,000.

The total capital invested in this branch of the industry, as compared with other industries, ranks second only to that of the steam railroads of the country. Compared with some of the other better known industries it shows up as follows: Iron and steel and their products, \$10,187,000,000; textiles, \$7,500,000,000; chemicals and allied products, \$6,900,000,000; food and kindred products, \$5,650,000,000; lumber, etc., \$2,625,000,000; transportation equipment, \$3,150,000,000; metals and metal products other than iron and steel, \$2,190,000,000;

total of \$1,468,805,000 of new securities were sold, of which \$1,315,459,000 were distributed by bankers and \$153,436,000 sold direct to customers. In 1922 total new securities sold aggregated \$718,961,000. The peak total for any one year was \$2,152,527,000 in 1927.

1931 Gross Revenues \$2,137,490,000

Countless groups of statistics may be presented to illustrate the growth and importance of this industry in the present-day life of the nation both from the domestic and industrial sides. The most important from the laymen's viewpoint are the figures covering the gross revenue for the industry as a whole, the number of men engaged in the industry, and the number of customers served.

In 1931, for instance, the gross revenues of the electric light and power industry aggregated \$2,137,490,000, a drop of only 0.7 per cent as compared with the record total for all time of \$2,151,150,000 reported for 1930 and a gain of 1.5 per cent compared with the boom year total of \$2,105,900,000 reported for 1929. Here again this branch of the industry demonstrates its importance in present-day civilization and the essential need for its service in times of depression as well as during periods of reaction and readjustment. The 1931 total of revenues compared with \$1,020,439,000 reported for 1922, \$302,273,000 for 1912 and \$55,700,005 for 1902. Thus there has been a twenty-four-fold increase in gross revenues between 1902 and 1931.

In this connection it is interesting to note that during the same period there was a thirty-six-fold increase in the volume of energy produced at central stations. Thus,

as the demand for electricity increased the rates charged for consumption decreased, due to greater economy of operation because of progressive efficiency on the part of the industry coupled with sound and farsighted management which studied the future as intensively as the present and was always in a position to meet all demands made upon it, not only from the small industrial consumers, but big industry as well.

To illustrate the kilowatt-hour production of electric energy with indices, making a comparison from the beginning of the industry and working up to the peak, gives the layman a better picture. In the first years the public had to be convinced of the safety and reliability of this new service. The expense of wiring homes and business establishments already equipped with other means of illumination also retarded the early growth of the industry, a factor which was prevalent until the early part of this century.

Although only 70 per cent of the population of the United States lives in electrically equipped homes, the statement has been made that virtually the full population uses the service rendered by this industry, either directly or indirectly in their dealings with the operating companies or with their neighbors or merchants. It is estimated that 85,500,000 Americans live in electric lighted homes.

The total number of customers listed on the books of the country's

White House Usher won Post as Electric Expert

Isaac Hoover, chief usher at the White House since the administration of Benjamin Harrison and known to more persons, in all probability, than any other man in the country, owes his more than four decades of White House service to the incandescent electric light.

Sent in 1890 as a young man of 18 months to turn them off. Later we were ordered to wire the bedrooms. Often, rather than touch the new-fangled incandescent, the occupant of a bedroom would move to another chamber and let the electric light burn. I would find it blazing when I arrived in the morning.

"At the end of six months the work was complete and I was ordered back to New Jersey. The day after I returned I received a White House telegram asking me if I would care to accept a government position. I accepted without delay. So I became both usher and official operator of the White House electric lights."

are in service today, capable of transmitting 220,000 volts, compared with the original direct current service of 220 volts. Today electric current can be transmitted several hundred miles, though in actual operating practice the shorter the distance between power plant and market for power the better. This possibility of long-distance transmission permits the interconnection of power plants over wide areas, with resultant economies of operation and greater assurance of certainty of supply.

This advancement in electric generation and distribution made possible by the advancement of electric science has been an important factor in the downward trend of electric rates. In this connection "The Electrical World" in a recent review gives some interesting facts. It states:

"The rate of domestic energy has been steadily declining. For energy used in 1931 the average rate was 5.87 cents per kilowatt-hour; for 1930 6.03; for 1929, 6.33. It is now 16 per cent lower than it was in 1926. Meanwhile, revenue per customer, \$31.65 in 1929, \$33 in 1930, rose to \$34.10 in 1931. The changes can readily be traced to the expanding use of electric appliances, and in the last few years to the installation of refrigerators, ranges and water heaters."

U. S. Creates 3rd of World's Power

The electric generating capacity of the world today is approximately 100,000,000 kilowatts, of which about 38,000,000 kilowatts, or more than one-third, is credited to the United States. The installed capacity of the rest of the world is 64,000,000 kilowatts. Germany leads the European countries, followed by France, United Kingdom and Italy.

In the United States today there are 2,596 central stations, compared with 5,221 in 1912, a comparison showing the trend to larger and more economical units. There are today about 130 systems having an annual output of 100,000,000 kilowatts or more, against only six in 1922. The generating capacity of all plants as stated is about 36,000,000 kilowatts, against 5,221,000 kilowatts in the earlier year. To distribute the output of these plants the industry maintains 210,000 circuit miles of high voltage transmis-

Electric "Center" Is in Illinois

Center of Electric Production Keeps Pace With Population Shift

The center of electric production in the United States is naturally fairly close to the population center and likewise has been moving during the last few years, although not in exactly the same direction as the drift of the population center.

In 1912 the center of electric production, as measured by the output of power plants in kilowatt hours, was on the Indiana-Illinois boundary line, about 35 miles north of Danville, Ill. During the next 16 years it moved a total of 35 miles to the southwest until in 1928 it reached its westernmost point about seven miles northwest of Champaign, Ill. In 1929 it turned eastward and moved nine miles south and five miles east, so that it now is approximately five miles due south of Champaign.

The center of population, according to the last computation, is located somewhat to the east of this point, in southwestern Indiana, while the center of manufacture is still farther east, in the western part of Ohio. One reason why the center of electric production is west of both the center of population and the center of manufacture is the great demand for electrical power in irrigation on the Pacific coast and the very general use of electricity on these farms, where water must be pumped electrically.

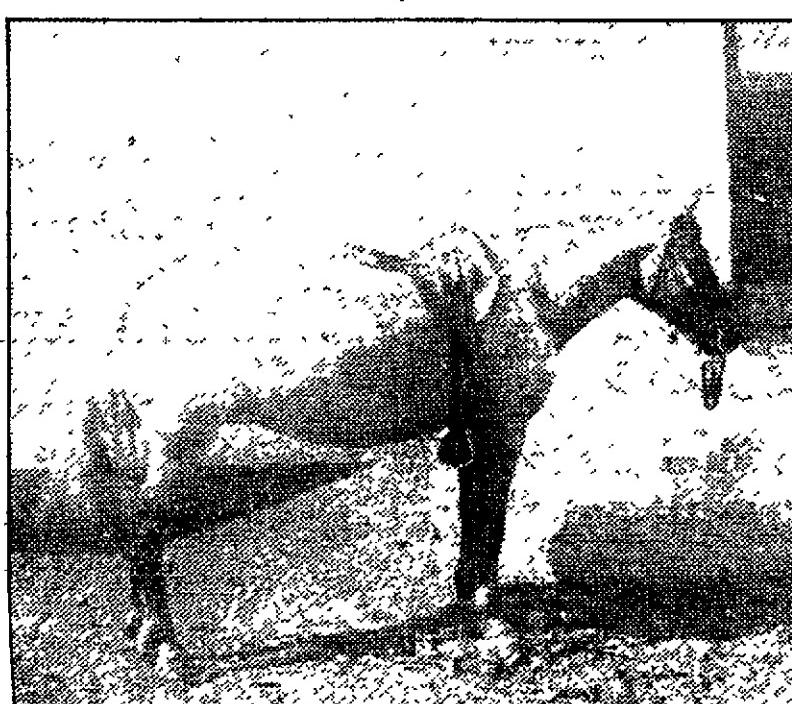
Approximately 75 per cent of the water power resources of the United States are located west of the Mississippi river, where only one-quarter of the demand for electrical power exists. It is shown by the production of electricity in 1929 that the demand for electrical power is growing faster in the east and south than in the north and west, and also that the proportion east of the Mississippi river is increasing.

Steam power must be relied upon at the present time to produce between 60 and 65 per cent of the total electrical power used in the United States, and, as time goes on, this proportion must be increased because the geographic location of undeveloped water powers renders their development, in many cases, unadvisable.

Steam lines, against 86,290 miles in 1922.

As to the future of the industry, the last public statement by the late Mr. Edison is to the point:

"My message to you is to be courageous. I have lived a long time. I have seen history repeat itself again and again. I have seen many depressions in business. Always America has come out strong and more prosperous. Be as brave as your fathers were before you. Have faith—go forward."



A. K. Ellis, vice president and general manager of the Wisconsin Michigan Power Co., has been closely identified with the electrical industry for nearly 45 years, and for 35 years in Appleton. At lower left is pictured as he appeared when he was 18 years of age, then already identified with the industry, and at lower right is pictured the pony he brought to Appleton in 1898 and which was his mode of transportation for the first few years here. Mr. Ellis is chairman of the committee in charge of the golden jubilee celebration.

at the corner of John and Meade sts, two doors west of the house occupied by H. D. Smith, one of the principal stockholders of the company, who lived in the house which is now used as a college dormitory. Subsequently the Ellis family lived in houses on Rankin-st, Eldorado-st, the corner of Pacific and Tonka, Drew-st and W. Prospect-ave. In December, 1931, the family moved from the Prospect-ave. house, where they had lived for 18 years, to their new home at Potato Point, on Highway 41.

Mr. Ellis was general superintendent of the various departments until the company was taken over by the North American company in 1923, and then he was made general manager. Later he was made vice president, general manager and director of the local company.

Since 1898 Mr. Ellis and his family have lived in seven houses in Appleton. His first home in Appleton was in a duplex apartment

leather and its finished products, \$1,650,000.

Additional evidence of the strength of the electric light and power industry in this country is furnished by the ease with which this field of endeavor is able to raise new capital for its development. Even in 1931 the industry disposed of a total of \$1,491,742,000 of new securities, of which \$1,341,742,000 were distributed through investment banking organizations and an estimated \$150,000,000 were sold direct to customers as a result of sales campaigns carried on by the various operating and holding companies. In the boom year of 1929, a

Thirty-second degree Mason and a member of the Elks lodge.

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LIFETIME FENCE

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CENTURY FENCE COMPANY
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Electric Food Mixers are one of the leaders in the small appliance sales of public utilities.

Hamilton Beach offers the industry a Food Mixer with the features women want. The Hamilton Beach Manufacturing Company, Racine, Wis., Subsidiary of Scovill Manufacturing Company.

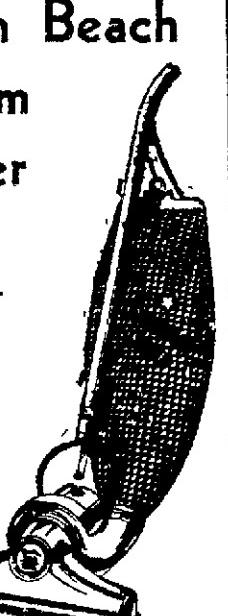
HAMILTON BEACH

Hamilton Beach Vacuum Cleaner

Motor-Driven Beating Brush

\$39.90

We challenge comparison for quality and efficiency regardless of price.



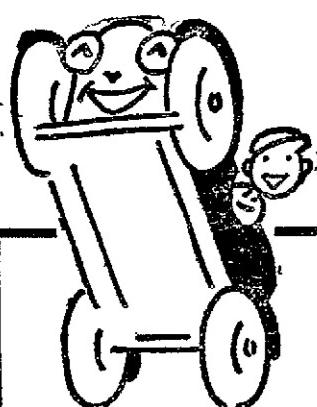
Gibson Tire and Battery Co.

Goodyear Distributors

Extend Congratulations



To the Wisconsin Michigan Power Company and the Wisconsin Utilities Association come the sincere congratulations of Goodyear and of the Gibson Tire and Battery Company upon the important event in the history of electricity which is about to take place. It has long been the pleasure of Gibson's to serve the Wisconsin Michigan Power Company, hence we find real personal pleasure in the fiftieth anniversary of the world's first hydro-electric plant, which was built in Appleton and which was the forerunner of Appleton's present public service company.



**NOW, no more struggles,
You simply "DRIVE THRU"
the Gibson Station!**

Meet "Mac"!

Direct from Kansas City, where he was in charge of that city's Willard store, comes Mr. Edward McDermott to take charge of Gibson's Willard Battery Service department.

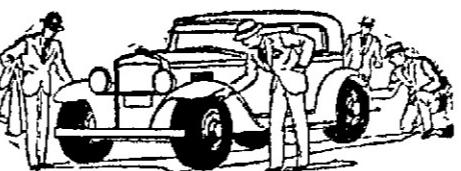
Call him "Mac" and call on him anytime your battery needs attention. His experience with Willard batteries and his Willard training for the past eleven years means that we are offering you the best service in Appleton for Willard or any make of battery.

"Mac" will enjoy serving you and you will enjoy his service.

Gymnastics with our customers' cars, we realize, is asking too much of them no matter how much they like Gibson Service plus Goodyear Tires and Willard Batteries. Consequently, motorists of this vicinity, it gives us great pleasure to announce the completion of our rear drive-out, the necessary step to provide you with "DRIVE THRU" Service.

Now, you drive into Gibson's, get the benefits of Gibson service and drive right out without backing up or turning around.

We think you'll like this improved service...the best way to find out is to drive in tomorrow.



Have You Had Your Airwheel Rider? We'll gladly give you a demonstration of these super soft tires pioneered by Goodyear.

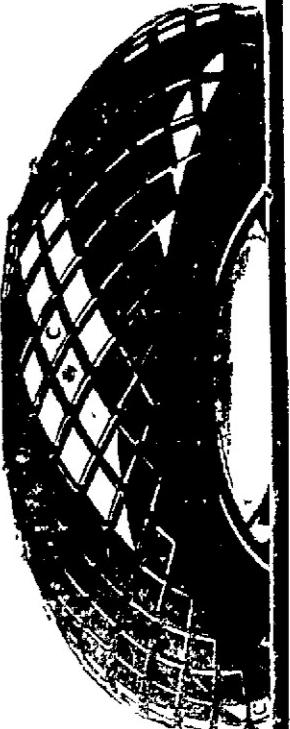
Power Company
Trucks and Busses are
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GOOD YEAR

*Safety of All Weather
Tread Traction and
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With thousands of miles of driving, over every type of pavement, under every type of weather conditions, Power Company trucks and busses MUST be equipped with dependable, trouble-free tires. Repairs and construction must go on unhampered, deliveries must be made, thousands of bus passengers must be safely and quickly carried to their destinations.

That's why you see Goodyear All-Weather Tires on Power Company trucks, busses and company cars. Look underneath and you'll see that Willard Batteries are doing their share of extra duty, too!



DRIVE IN **T** **&** **B** **SERVICE**
GIBSON TIRE & BATTERY CO.
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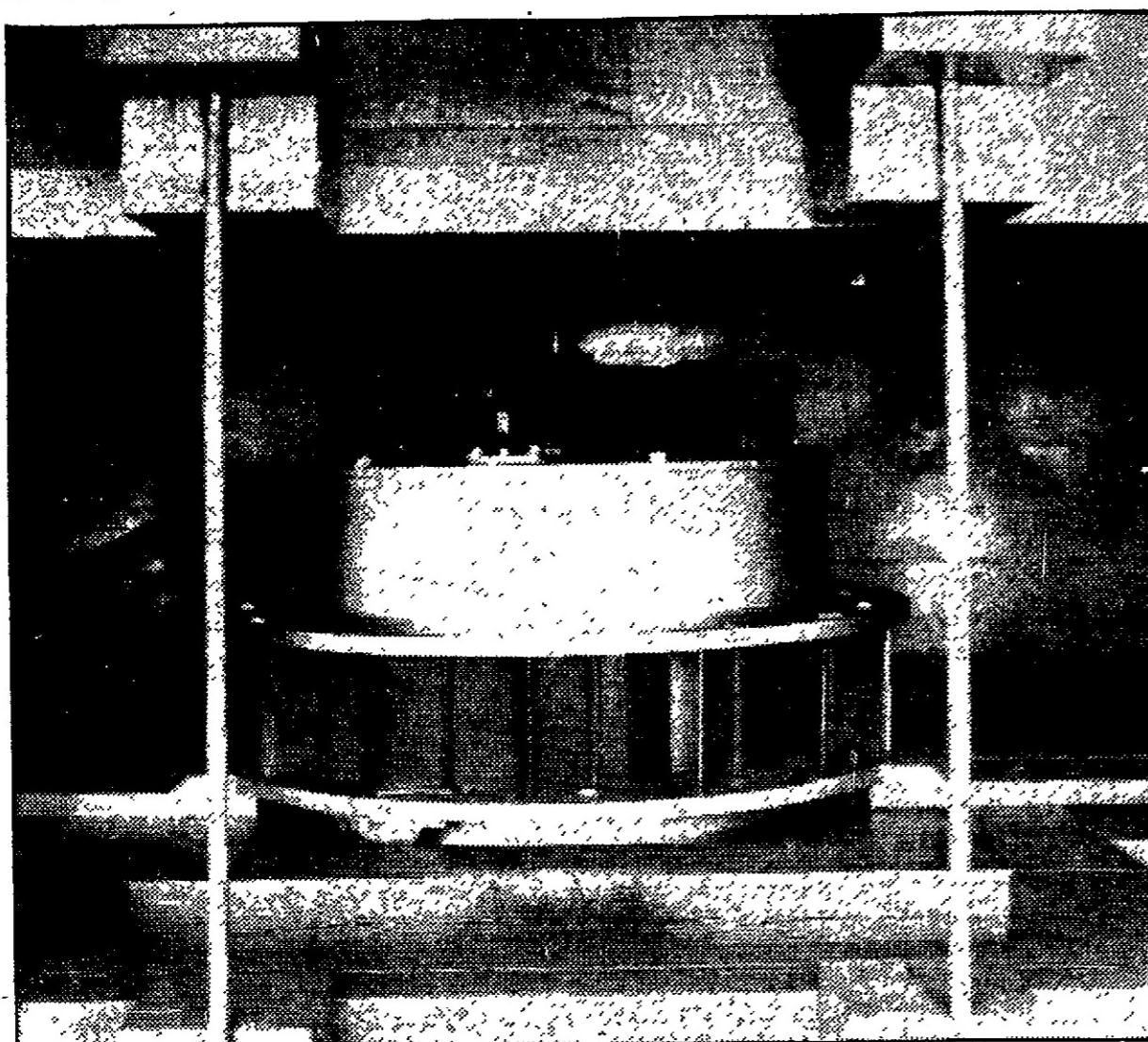
Spend Months In Building Replica Here

Whole Country Scoured
For Relics to be Used
In Celebration

BY W. E. SCHUBERT
The idea of reproducing the old Vulcan Street plant at Appleton, Wisconsin originated with A. L. Pond of the General Electric Company about four years ago when the Wisconsin Utilities association held its meeting at Appleton, Wisconsin. Following the suggestion, Mr. Pond together with A. K. Ellis of the Wisconsin Michigan Power company and Roscoe Walters of the Wisconsin Power and Light Company were appointed as a committee to investigate the feasibility of such a reproduction and to find a suitable place for it if it were to be reproduced. For three years the committee discussed the matter in an informal manner and at the November convention of 1931 recommended definitely that the association appropriate money for the reproduction of the plant, that it be ready for opening on the day of the fiftieth anniversary, and that a committee of Appleton men be appointed to centralize and proceed with the work.

Because of the economic conditions prevailing during the early months of 1932, there was some doubt as to whether the work should go ahead or not, however, at a meeting of the executive board of the association, the Wisconsin Michigan Power company urged that the work be carried through and in order to accomplish this end this company appropriated additional funds to augment those of the association. Mr. Ellis was appointed chairman of the committee to carry out the reproduction work and Mr. Pond and W. E. Schubert were appointed to assist him. About June 1, 1932, the committee became actively engaged in locating equipment, details of construction, and other important facts concerning the original plant. Veterans associated with the construction and operation of the first plant were consulted and by a diligent search throughout the files of the library of the city of Appleton and the various photograph shops a collection of photographs was assembled. The engineering department of the Wisconsin Michigan Power company then set to work in drawing up plans for the original plant on the basis of measurements scaled from photographs, by counting boards, window lights, door heights, and the like. Finally a complete plan of the building and the arrangement of machinery, all except the hydraulic prime mover, was finished and submitted to Mr. Kurz for verification. The hydraulic machinery and flume presented

MOTIVE POWER FOR FIRST ELECTRIC STATION HERE



A waterwheel, tiny compared with the mighty machines in use today, furnished the power for the first electric plant ever constructed in the middlewest. The upper picture shows the replica of the original wheel installed in the plant to be dedicated tomorrow, and at right is shown the wheel when it was found half covered with debris in a river near Waupaca. This wheel is practically an exact duplicate of the wheel in the original Appleton plant and is now in perfect running order.

a somewhat more difficult problem until finally Mr. Ed O'Keefe, still a resident of Appleton, was consulted. Engineer's sketches were then made picturing Mr. O'Keefe's memories and these were added to and revised until an accurate satisfactory set resulted. All drawings are being carefully preserved and will be on display at the time of the plant opening. In order to show both the exterior and interior flume construction, which ordinarily is underground and covered with water, it was finally decided to raise the building and let one

(Turn to Page 30, Col. 3)

High Voltages Send Electricity Long Distances

Modern Transmission Lines Made Possible By Transformers

Within fifty years the transmission voltages at which electric current is sent from point to point have increased a thousand times. In the distribution system which carried the current from the first hydro-electric plant to the few houses and mills wired for electricity in Appleton in 1882 the electrical pressure was 110 volts, and in the three wire system introduced a year or two later, the pressure never was higher than 220 volts. At present electricity is transmitted in several localities in this country at 220,000 volts.

There is a fundamental difference in one aspect of this thousand-fold increase in transmission voltages. Edison transmitted by direct current, as distinguished from alternating current. Most of his contemporaries did likewise. But transmission today is invariably accomplished with alternating current, and the distances are far greater than the longest stretch of wire over which any one sent electricity in 1882.

The change from direct to alternating current in electric transmission involves the story of the transformer, which not only caused this shift but also became the instrumentality of electrical progress on a nation-wide scale and thereby took its place as a device of parallel importance with the steam turbine. Yet the transformer has no wheels that turn, no levers that click, nothing whatever that moves.

It is one of the remarkable tools of modern electrical engineering; a device which operates by the play and action of magnetic and electrical forces. In its elemental form it consists simply of an iron core, or ring around the opposite sides of which are wound coils of wire. These coils are each connected to electrical circuits, but there is no physical or electrical connection between the coils. They are linked together by the intermediary ring, around which travels the magnetic action which gives the transformer its practical value.

By making the wire of the coils either thick or thin in relation to each other, and by winding them about the core either many times or only a few times, electrical engineers can cause the transformer to either increase "step up" or decrease "step down" the voltage of an electric current. This permits long-distance transmission, because an electric current with high voltage behind it can be transmitted much farther without loss, or leakage of the current than a current of low voltage. Consequently transformers at generating stations take the output of the big generators, "step it up," to high voltage for transmission and deliver it to other transformers, many miles

away, which "step it down," for use in electric lamps and motors.

Actually the current goes through two or three intermediate stages of "stepping down" before it is reduced to the low voltages at which it enters customers' premises.

It is thus apparent that the transformer is, practically speaking, the heart of the modern electric light and power system. Its appearance unlocked the door to progress and insured the extension of electric systems to all sections of the land at economical cost. Yet it was almost ten years before the transformer came into extensive usage in the history of electrical progress.

The first men to introduce transformers in practical electrical work were the late William Stanley, of Great Barrington, Mass., and Professor Elihu Thomson of Lynn, Mass. Professor Thomson, who is now the dean of the scientists associated with the General Electric Company, had experimented with this method as far back as 1879. It was Stanley, however, who gave the transformer its start in life when he made practical a faulty European design and in 1886 demonstrated the capabilities of such a system. The late George Westinghouse backed him commercially and exploited his transformer through the Westinghouse Electric and Manufacturing Company. By 1890 the transformer was well established and from that time on transmission voltages crept upward and transmission distances increased.

Today, as stated, the maximum voltage is 220,000 volts. The maximum distance of transmission is 250 miles. Electrically speaking, much greater voltages and much longer distances are perfectly feasible, for in 1921, when the first 220,000-volt lines were just going into operation, high-voltage engineers of the General Electric Company transmitted electric current in their laboratory at 1,000,000 volts. From an economic viewpoint, however, higher voltage than 220,000 have never yet seemed justifiable. Whether such a time will come in the future remains to be seen.

As time went on electrical engineers found that they needed other tools besides the transformer to maintain progress. At one period during the early 1900's, transmission advance was halted completely by the limitations of the insulators mounted on the poles and towers of the transmission lines. This problem was finally solved, largely by Edward M. Hewlett, General Electric engineer, with his suspension type of insulator. It was also a substantial aid to have steel transmission towers replace the wooden pole lines of the early years.

COSTLY LESSON

Los Angeles—Richard Scranton, 27, was unemployed with \$3 in his pocket. Instead of using the money for food, Scranton bought a gun and attempted to hold up a cafe. A special officer, J. H. Deering, was in the cafe at the time, and shot Scranton twice. The would-be bandit is now in the hospital, paralyzed for life.

Seventy per cent of all the wine imported into England comes from its possessions.

Air Conditioning To be Next Giant Of U. S. Industry

Huge Market for Electricity in Maintaining Desirable "Weather"

The astonishing thing about man is that he has taken so long to regain the comforts he lost in the Garden of Eden. A hundred years ago he was happy with a bare roof to ward off the rain, a few sticks of wood to keep himself from freezing to death in the winter, a tallow candle to light his way to bed if kept up after daylight and a horse to lengthen the stride of his own legs on a distant journey.

With this in mind, the anniversary of the opening of the first hydro-electric station takes on a new significance. It gave man the power over night and day. It gave man many more hours a day for employment or enjoyment. It was soon followed by electric traction, which lengthened man's legs immeasurably. And one after another of the fundamental faults of this earth, as we inherited it, have since been overcome. It would require a lengthy list to enumerate them all. It would include not only all of engineering, but of medicine, agriculture, et al.

But with the most annoying feature of this earth, the weather, we have done comparatively little until the last few years. Now air conditioning, the control of weather indoors, looms up as the next big giant of industry. It promises to put thousands of unemployed back to work. It will undoubtedly require more electrical energy than it takes now to light domestic and industrial America.

Start Made in Ventilation

Let us take a look at this promising infant. Air conditioning includes a variety of things. It includes ventilation, cleaning, or removal of dust and other impurities, heating or cooling, and control of humidity. With the first of these, ventilation, we are already familiar.

It received a fair impetus during the carbon dioxide era—the period when we prescribed all the ill effects due to air in crowded places as due to the carbon dioxide breathed out by the occupants. It became common practice to equip theatres, school rooms and so on with huge ventilating fans capable of changing the air every few minutes.

If it were realized that ventilation does more than merely change the air, it would be used much more than it is now.

The movement of air produces a decided cooling effect. For example, it has been found by physiological experiment that under maximum conditions of humidity the upper limit of endurable temperature for a person at rest is 90 degrees F. If the air is moved at the rate of 200 feet per second, the upper limit is 95 degrees F. In other words, giving the air a slight movement is equivalent to a temperature reduction under

Electricity Used to Dig Bait for Fishing
Here is some good news for the old-fashioned fisherman who uses garden worms for their bait. No more need they start on their trips with backs bent and sore from digging of worms. No more need they look for the spade or fork which is usually misplaced. For electricity has come to the aid of the fisherman. All that is needed now is to put your electric "worm digger" into the ground, turn on the current and presto, the worms come up to see what it is all about, and all that has to be done is to pick them up and put them into an old tin can and apply them to the hook as needed. This is better than steam shovel digging, for the worms separate themselves from the earth when the electric worm digger is used.

These extreme conditions of humidity of 5 degrees F. This is due to the fact that motion of the air helps evaporate moisture from the skin and so produces coolness. If the air temperature is above body temperature, this effect does not take place. In the example given, the temperature was near body temperature. Greater effective reductions can be obtained at lower temperatures.

Summer Comfort Attained
If these facts were realized, many homes would be equipped with forced ventilation, not only to remove kitchen odors, as is now occasionally done, but for the sake of summer comfort. The author has long taken advantage of this fact in his own home.

Probably the outstanding example of ventilating is that of the Holland Tunnel. The ventilating system consists of four shafts each five stories high. Forty-two fans force 3,761,000 cubic feet of air per minute into the roadway. There are the same number of exhaust fans. Blower and exhaust fans, totaling 6,000 horsepower, cost nearly \$30,000 per year to operate.

The second factor of air conditioning, cleaning, has not until recently received much attention except in industries where, because of especially dusty conditions, it became necessary. Now, because of the excessive amount of smoke and dust which we find in our cities, this factor is becoming very important. Cleaning is, in general, accomplished by passing the air through moist filters, by passing it through a water spray, or by causing it to impinge against a viscous surface. Possibly one device that is destined to come into common use for homes and offices where central air cleaning is not installed, is the window type cleaner. This device, which resembles an enclosed radiator, is installed at the window and draws in air through filter pads by means of a fan. Such a device has the additional advantage of shutting out street noises. It also imparts motion to the air, thus giving

(Turn to Page 28, Col. 5)

THE C. REISS COAL COMPANY
extends
Congratulations to
Wisconsin Michigan
Power Company
and
Wisconsin Utilities
Association
in their
GOLDEN JUBILEE CELEBRATION

Four Appleton Men Pioneered Baby Industry

Business Leaders of Half-Century Ago Set Pace for Country

The names of four prominent Appleton manufacturers in the early eighties, Augustus Ledyard Smith, H. J. Rogers, C. A. Beveridge and H. D. Smith, and that of an enterprising youth of 20, William D. Kurz, stand out as pioneers and promoters of the world's first hydro-electric station, established in Appleton in 1882.

These were the men who organized the Appleton Edison Light Co. in Mr. Rogers' factory in the summer of 1882, supplying the first electric light in the city to the Appleton Paper Mills, Vulcan Paper Mills and the residence of H. J. Rogers on the river bluffs, known as the Priestley home.

Mr. Kurz, working his way through Lawrence college through his employment with the Appleton Gas Light Co., of which Mr. Rogers was president, was chosen to install and run the Edison dynamo financed by the four other Appleton men. He became the first superintendent of the plant and later in 1887 went to La Crosse to install and manage a new plant. He returned to Appleton in 1892, where he has made his home since. Mr. Kurz is credited with making the first, or one of the first electric curling irons in 1886, before such appliances were known. He has also invented a lamp socket and other devices that were on exhibit at the Chicago World's fair in 1893. While in La Crosse he introduced the common method of stringing lights in arches across business streets for gala occasions.

Mr. Kurz remembers well the lack of knowledge of electricity 50 years ago, describing the process of making those first lights burn as a trial and error method. The first service lasted from nightfall until dawn, with the mills never turning off their lights since they went out automatically when the generator stopped at daybreak.

H. J. Rogers, president of the Appleton Gas Light Co. and manager of the Appleton Paper Co., became the vice president of the Appleton Edison Light Co. after its formation. This prominent manufacturer was instrumental in the change of gas lights in the city to electric lights by the Appleton Gas Light Co. The Rogers family left Appleton in the nineties.

Augustus Ledyard Smith, first president of the new firm, was an outstanding man in this city. His residence in Appleton dated back to 1859 when he assumed the chairmanship of the Wisconsin Fox River Improvement Co. His career includes the roles of banker, professor, editor, manufacturer, senator. Owing to his interest in the electrical world, he was elected vice president of the National Association of Edison Illuminating Companies in 1894.

Born In East
The youngest son of August William Smith, president of Wesleyan university, A. L. Smith was born in Middletown, Conn. Following his education he became a tutor at the University of Wisconsin, the secretary and land commissioner of a large improvement company, editor for a year of the *Fond du Lac Union*, which work he gave up to become an assistant professor of mathematics in the United States Naval Academy.

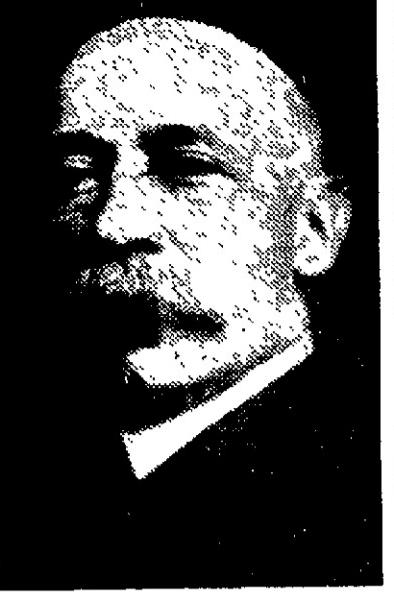
When he was 33 years old he served as senator for the state of Wisconsin, following which he became secretary and treasurer of the Green Bay and Mississippi Canal Co. successors to the Fox River Improvement Co. He became the mayor of Appleton in 1870. He served as president of the First National Bank for 20 years, after organizing the institution. His manufacturing interests took him into iron work, when he organized the Appleton Iron Co., serving as its president for many years. His connection in later years, before his death at the age of 69, 1902, with education was as regent and trustee of the state university and trustee of Lawrence college.

Came From Canada
Charles A. Beveridge, prominent business man and manufacturer who became the first secretary of the Appleton Edison Light Co., was Canadian born. He located in Appleton in the fall of 1871, employed as a scaler of logs in the lumber woods and a log rafter in the summers. In the autumn of 1872 he formed a business partnership, Mason, Marston and Beveridge, in the manufacture of wagon stock. Mr. Beveridge was the active member of the firm, which later was owned by Capt. Marston and himself. He later became vice president and stockholder of the Appleton Woolen mills, established in 1882. He served as an officer in the electric company for nine years.

Henry D. Smith, treasurer of the first plant, came to Appleton from Ohio in 1873, to engage in iron manufacturing. He purchased an interest in the Appleton Iron Co., becoming its secretary and treasurer, and later in 1878 reorganized the corporation of the National Furnace Co. at DePere, becoming its president. He was elected president of the First National bank in 1881, having served as vice president for about 10 years before that time. His death occurred in Appleton at the age of 68, in April, 1909.

WORSHIPPED MOUNTAINS
Washington—Evidence of a race of mountain-worshipping Indians is said to have been found by Dr. Walter Hough, head curator of anthropology of the Smithsonian Institution. The lost race was found in Arizona, in the northeastern part of the state. They lived in the shadow of four mountain peaks one at each point of the compass.

PIONEERS IN ELECTRICITY



Here are the four men who, with W. D. Kurz, the first superintendent, were responsible for the world's first hydro-electric central station, the golden jubilee of which will be celebrated tomorrow. These pioneers in electricity were, (top row) H. J. Rogers and H. D. Smith; (bottom row) C. A. Beveridge and A. L. Smith.

Appleton Showed Lots of Ambition 50 Years Ago

Appleton was a prosperous and thriving town in the early eighties, like most midwestern cities with its pioneer merchants stores bordering the main-st. College-ave, its women dressed in hoop skirts and muslin and dolman coats, its streets and stores lighted with the dull light of gas lamps in the dusk.

Smart tandems and trotting horses traversed the streets, large, many windowed and balconied homes bordered the Fox river and quiet residential districts, dramatic and costumed operas were held in the old Bertschy hall, and manufacturing and lumber business prospered on the waterfront of the Fox river, the canal highway which led out of the city.

Files of the two newspapers, The Appleton Daily Post and The Appleton Crescent record the events immediately surrounding the year when the first hydro-electric plant in the world was established in the city through the efforts of local business men.

In January 1880, the Appleton Telephone Co. was organized with 23 patrons, which marked progress in the electrical world to be followed two years later with electric lights and an electric street railway in 1882.

March of 1881 saw the elective officers of Appleton, such as the mayor, treasurer, city attorney, city clerk, and assessors chosen at large as a step toward political progress.

The same year petitions began for Appleton's city water works, Prescott hospital was erected on the property site of Chase Prescott in May and the Hyde property, now known as City park, was bought for \$13,000 and designed for a city park.

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Electricity Has Big Part in Daily Newspaper Work

Both Power and Heat Essential to Modern Publishing Plants

"This is lightning work with a vengeance, and yet it is possible that there may be some who read this will live to call it slow. That will probably be when they have found out all about how to put a harness on electricity."

Even though this press was driven by means of an electric motor its speed control was extremely crude, and the production to present-day machines, very uncertain and restricted. The operation, however, led many engineers into the field of automatic control of electric motors as power for printing presses, with the result that in 1896, 1897 and 1898 several newspapers had presses equipped with the rudimentary apparatus of which the present control is a development. This progress over the last thirty-five or forty years has produced machines capable of delivering a score of newspaper pages, whereas the "lightning press" of "The New York Herald" produced one in 1891.

64-Page Papers Printed
The large newspapers of the country today have an operation press capable of printing sixty-four pages in each copy and delivering them folded for binding at the rate of more than two hundred a minute. These machines are driven by electric motors directly connected by chain to the main shaft and are so closely controlled electrically that the sheet of newsprint in the press may be moved one-half inch at a time or sent flying on its path at a speed of 1,000 feet a minute at the push of a button. One is certainly inclined to believe that a "harness" has been put upon electricity in this case.

In 1898, about ten years after that marvelous near-human machine, the linotype, came into use, electric motors were attached to five machines and delivered to "The New York World." Before that date to this the Mergenthaler Linotype Company has supplied the machine with an individual motor requiring only the connection of wires for its mechanical movement.

Every linotype supports on its frame a pot containing type metal which must be in a melted state before the line of type may be cast and the only available fuel in the nineties, and for some time therefore, was illuminating gas. The studies of Mergenthaler engineers on electrical heat brought forth in 1910 and 1911 the electrically heated metal pot which was tested out at the Government Printing Office in Washington. Eight of the first electrically heated machines were shipped to Manila, P. I. in the next year for the Government Printing Office there.

Many Advantages Gained

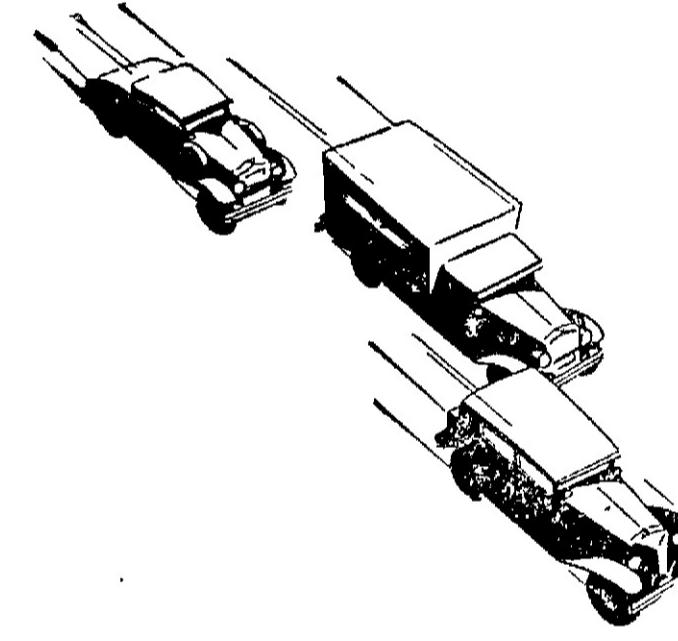
This development enables the newspaper plant to rid its composing room of unsightly ventilating pipes, to provide its employees with much cooler and cleaner work rooms and to eliminate the uncertain manual control of temperature of the type metal that is the cause of poorly cast type. Such implicit reliance of newspapers on electric power in this essential department of production indicates the high degree of surely that the present power plants have attained.

The applications of electric heat to the third essential process of newspaper publishing, that of stereotyping, has been of comparatively recent date. In 1925 the

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the swing is to Cities Service



AUTUMN brings with it more excitement than usual this year — what with the election fever in the air. Where the political swing is headed may still be a mystery, but there's no doubt about the trend in motorists' habits.

The swing is to Cities Service, definitely, and for a reason.

Crisp Autumn weather, often changing to cold, makes a difference in motor performance — unless Cities Service is represented in your crankcase and gasoline tank. Your car NEEDS that extra snap in Koolmotor gasoline to start easily and run with summer pep and power during these autumn months and later on in winter. Likewise, it needs the smooth performance of the perfect Pennsylvania Motor Oil — Koolmotor.

Drive into a Cities Service Station now. Drain and refill with Cities Service oil. Pep up your motor with Koolmotor gasoline.

Then you'll understand the swing to Cities Service!

CITIES SERVICE Once—Always

FOOTBALL time is here. At easily accessible points throughout the middle-west are games you'll want to see. Remember — Cities Service before you leave, and when you get there!



To the Wisconsin Michigan Power Company and the Wisconsin Utilities Association our best wishes on the occasion celebrating the fiftieth anniversary of the world's first hydro-electric plant.

Winona Oil Company
Winona, Minnesota
A Subsidiary of Cities Service

Congratulations

It is with real pleasure that we compliment and congratulate the Wisconsin Michigan Power Company on its development and growth since the establishment in Appleton on September 30, 1882, of the first commercial hydro-electric plant in the world.

We are proud to have had a part in this development through supplying the Power Company and many other utility concerns with material and equipment.

[We wish to announce our appointment as distributor in the State of Wisconsin for Majestic Radios and Refrigerators.]

John Pritzlaff Hardware Co.

Milwaukee, Wisconsin

Here are some of the lines in the complete hardware and electrical stock which we carry:

MAJESTIC RADIOS and REFRIGERATORS

HORTON WASHING MACHINES

STANDARD (ELECTRIC)

STOVES

MANSFIELD LINES

Edison Light Marked Start Of New Epoch

Celebration Here Confirms
Prediction Made Fifty
Years Ago

Just fifty years ago Thomas A. Edison predicted that his invention, the incandescent electric lamp, "meant the end of one epoch in civilized life and the beginning of another."

Tomorrow's celebration in Appleton marks not only the fiftieth anniversary of the opening of the first hydro-electric central station in the world, but it also is the confirmation of Edison's prediction. Civilization indeed has changed, and Edison was one of the most potent factors in the change. Even though he knew a new era had dawned, he could scarcely envisage the result of his work—cities garlanded with lights, huge power plants sending light and power into the most remote regions, huge buildings carrying millions of passengers in their elevators, production speeded up and the working day shortened.

Projected A Public Utility
Historians of invention regard this transformation as the natural outcome of the incandescent lamp. It was more than that. Edison set down every idea that ever came to him in a note book. There are literally hundreds of these books. In book 184, devoted largely to "Electricity vs. Gas as General Illuminants" he indicates clearly what he always had in mind, before he had produced his first lamp:

Object, Edison to effect exact imitation of all done by gas, so as to replace lighting by gas by lighting by electricity. To improve the illumination to such an extent as to meet all requirements of natural, artificial and commercial conditions.

And then another note:

Previous inventions failed—necessities for commercial success and accomplishments by Edison. Edison's great effort—not to make a large light or a blinding light, but a small light having the mildness of gas.

There is much more about the cost of copper and generating machinery, candlepower, efficiencies, the amount of gas consumed by the average household from January to December, the economies that would follow the introduction of the largest dynamos. It is clear enough that what this young man in his early thirties had in mind was much more than the invention of an electric lamp for the office and home.

He was planning a whole public utility. Dynamos, cables, insulation, switches, meters, sockets, chandeliers, junction-boxes—these things could not be bought. He had to invent them all and then make them. And later he would have to go down on his hands and knees in the dirt of trenches and see for himself that his instructions were being carried out. In the whole history of invention there is no more striking example of technical boldness and high purpose.

Edison himself confined his efforts toward establishing a central station in which to generate current for his new lamps largely to the east, but here in the west men with vision were quick to see the possibilities of the new illuminating agent perfected by the electrical wizard a year or two previous. Even before the work on the first eastern plant—the Pearl street station in New York—got underway, a company was organized in Chicago to sell Edison dynamos and supplies, and this company's first contract for a central station to supply a municipality with current, was signed with the Appleton Edison Electric Light Co. Unwilling to wait for an actual demonstration of the reliability and efficiency of the new-fangled lighting system which appeared to have such great possibilities to the far-seeing pioneers of Appleton, they proceeded with the installation of the hydro plant. They were real pioneers—these men. More than a little courage was required to invest their money in an enterprise as thoroughly untried as the manufacture of electricity. It was a shot in the dark—but a shot that eventually lighted the world.

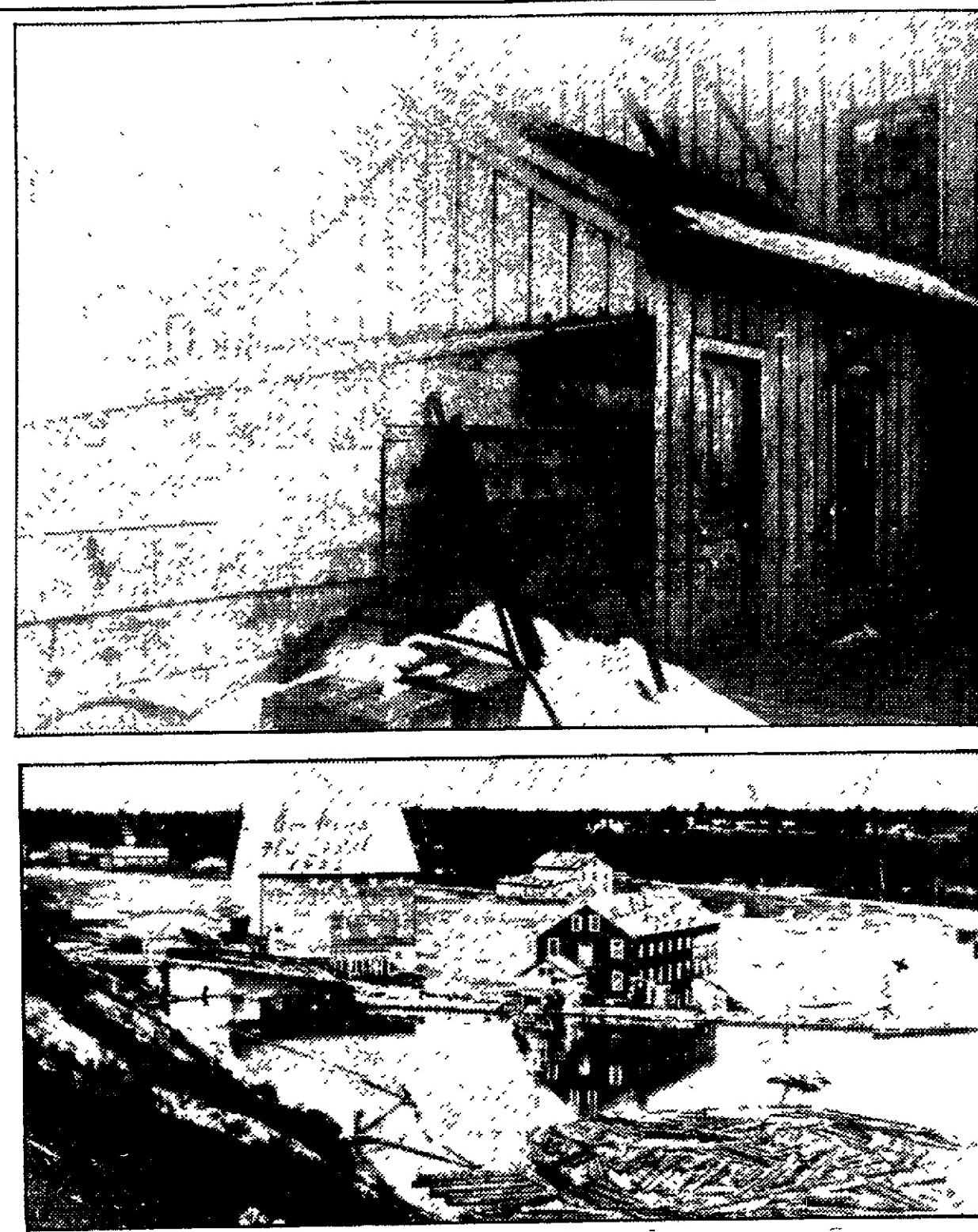
First Of Its Kind

It is not strictly accurate to say that either the Pearl street station in New York or the hydro-electric station in Appleton was the first central station in the world. Even before this time some cities were experimenting with arc lights to illuminate their streets and these lights pre-supposed some sort of a central station. But arc lights had no place in the home or office. The incandescent lamp was designed to compete with gas, and the current for this type of lamp required a new kind of station. The hydro-electric station in Appleton was the first of its kind—as original as the first steamboat or the first locomotive.

But before there had to be a lamp. And that is where Edison performed his chief wizardry. According to the best authorities, this type of lamp was impossible, because Edison's "subdivision of the electric light," as it was called in Victorian days, was an absurdity; Preese and Tyndall in England had said so, and both were the highest authorities. On Oct. 21, 1879, Edison achieved the impossible. An exhausted glass globe contained a piece of charred sewing-thread which glowed for forty hours as a current of electricity passed through it.

"We sat and looked," Edison said years after, "and the lamp continued to burn. The longer it burned the more fascinated we were. None of us could go to bed, and there was no sleep for forty hours. We sat and just watched it with

WHERE FIRST DYNAMOS WERE LOCATED



The first dynamo ever driven by water power was attached to a beater shaft in the old Appleton Pulp and Paper Co. mill pictured in the right foreground of the lower picture. This mill stood at the north end of the upper dam, immediately west of the old Tioga paper mill. The dynamo remained on the beater shaft only a short time however, before it was moved to the "office" of the papermill pictured at the top, where it remained until the first central station was erected.

Newspapers Lean On Electricity

Modern Publishing Plants Depend Heavily on Electric Power

(Continued from Page 27)

General Electric Company installed for "The Waterbury American" of Waterbury, Conn., electric heating units in one of the metal pots of the plant. This installation attracted attention from all parts of the country and was from the start a very successful application of electricity.

Yes, only a beginning. But he drove himself and his assistants so hard that by the end of that year several hundred incandescent lamps with charred-paper filaments were glowing not only in his Menlo Park laboratory but in the streets of the village. The lamp was so much of a wonder that the Pennsylvania Railroad ran special trains to Menlo Park on New Year's Eve, 1878, so that more than 3,000 curious New Yorkers might see with their own eyes a little piece of paper in the form of a filament shining brightly but without burning up, for Edison had already given up sewing thread for paper, as he was later to give up paper for carbonized bamboo.

To carry out his far-flung program of research Edison had formed as early as 1878 his Edison Electric Light Company. After the demonstrations of the lamp in Menlo Park the stock sold at prices that made those of the 1929 bull market seem insignificant.

When the newspapers acclaimed Edison's success the quotations jumped to \$500 a share, then to \$3,000 and finally established a high price of \$8,000. All this left Edison unmoved. He was bent on bringing his light into the home, office and factory.

But as Edison started to build his first plant he found the need for many things, entirely new in a world strange to electricity. It

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The Locke Insulator Corporation is proud to have been associated with those men and organizations to whose vision and effort the present high state of electrical development in the state of Wisconsin is due.

LOCKE INSULATOR CORPORATION

Baltimore
Maryland

230 S. Clark St.
Chicago, Illinois

Air Conditioning to be Next Giant Industry

(Continued from Page 26)

ing the effect of cooling. The cleaning principle is the same as in the large central systems.

Heating Purpose Achieved

With the third factor in air conditioning, control of temperature, we are somewhat familiar. At least we are familiar with the heating side of the question. But even here we are perhaps due for a jolt soon. It appears that by heating materials an insulated storage tank at night for circulation through a heating system the following day, electric heating becomes economically possible. Energy can be bought cheaply because the load comes during the night when there is a slack period. With the other side of temperature—cooling—we are less familiar. However, electric refrigeration has been developed to such a point that it now becomes possible for the average family to consider it for the home. Theaters, stores, trains, and even ships have found it necessary if they are to hold their patronage against various forms of competition. Some offices and factories are now using it solely on the basis of the increased efficiency of their employees under comfortable working conditions. But few homes have been equipped thus far.

Humidity Also Controlled

It is unfair, however, to consider refrigeration purely from the point of view of temperature reduction. We must consider it in conjunction with the fourth factor of air conditioning—humidity control. At any given temperature the air will hold just so much moisture and no more. The higher the temperature the more moisture the air will hold. The relative humidity is the amount

of moisture in the air expressed as a percentage of the amount which the air would hold as a maximum at that particular temperature. When the relative humidity is 100 per cent there can be no evaporation of moisture from the skin and so the method of keeping the body temperature down by perspiration becomes ineffective; one will be uncomfortable at almost any normal summer temperature. Experiment has shown that at a temperature of 100 degrees Fahrenheit and humidity of 50 per cent, one can accomplish four times as much work as at the same temperature and humidity of 100 per cent.

Refrigeration controls relative humidity as well as temperature. Thus refrigeration does a double duty. Suppose the air is saturated at 100 degrees F. Then if this air is cooled, some of its moisture will be forced to condense out. Now the air can be returned to the room less this condensed moisture. Even though it were heated to its original temperature, the room would still be much more comfortable because of the moisture loss. It would seem to be cooler because the body would have cooled itself through evaporation from the skin.

We neglect a real factor in home comfort if we do not consider humidity in winter heating as well as summer cooling. A room at 65 degrees F. and relative humidity of 100 per cent is as comfortable as one well above 70 degrees F. and 10 per cent. A little moisture added to the air will take the place of a great deal of heat. Several types of humidifying radiators are now being placed on the market to take advantage of this fact.

Air conditioning in theatres, stores, and more recently railway

cars and other public places has now become an accepted fact. But what the average man wants to know today is when he can afford it for his home. Here many new problems enter. The home lacks large-scale operation and must further have a fully automatic system, as the employment of an operator would be out of the question. An automatic system requires greater safety measures, for there is no one to shut off controls in case of failure. Moreover, in the home the system must be very quiet to be acceptable.

Difficulties Now Overcome
These difficulties have now been overcome and within the past year there have been placed on the market several conditioning devices that operate safely and quietly and which can be purchased at a price, and operated at a cost not inconsistent with other similar conveniences that we enjoy. These are, in general, for room installation and have the appearance of an enclosed radiator. They are being made and sold by manufacturers of such established reputation in similar fields as to leave no question in the minds of the purchaser as to their reliability.

A rather surprising development has taken place during the past year in the matter of central installations for small homes. This is in the use of ice for air conditioning. Ice has the advantages of safety without expensive controls, it is quiet and reliable. Its simplicity means low initial cost and the cost of transportation of the ice is largely offset by the low cost of manufacture by large-scale machinery used during the off-peak load on the power house.

Those who look at this system most optimistically predict that in a few years more ice will be used in this manner than the total of that now manufactured. If such is the case, it will mean enormous power requirements during the night when the load is normally

**Appleton Showed Lots
Of "Pep" in Eighties**
(Continued from Page 27)

same week in the old site of the Atkinson Chair Factory as the Appleton Edison Co. The new lighting company was sponsored by A. L. Smith, C. A. Beveridge, Henry D. Smith and Mr. Rogers with D. W. Kurtz as engineer and superintendent.

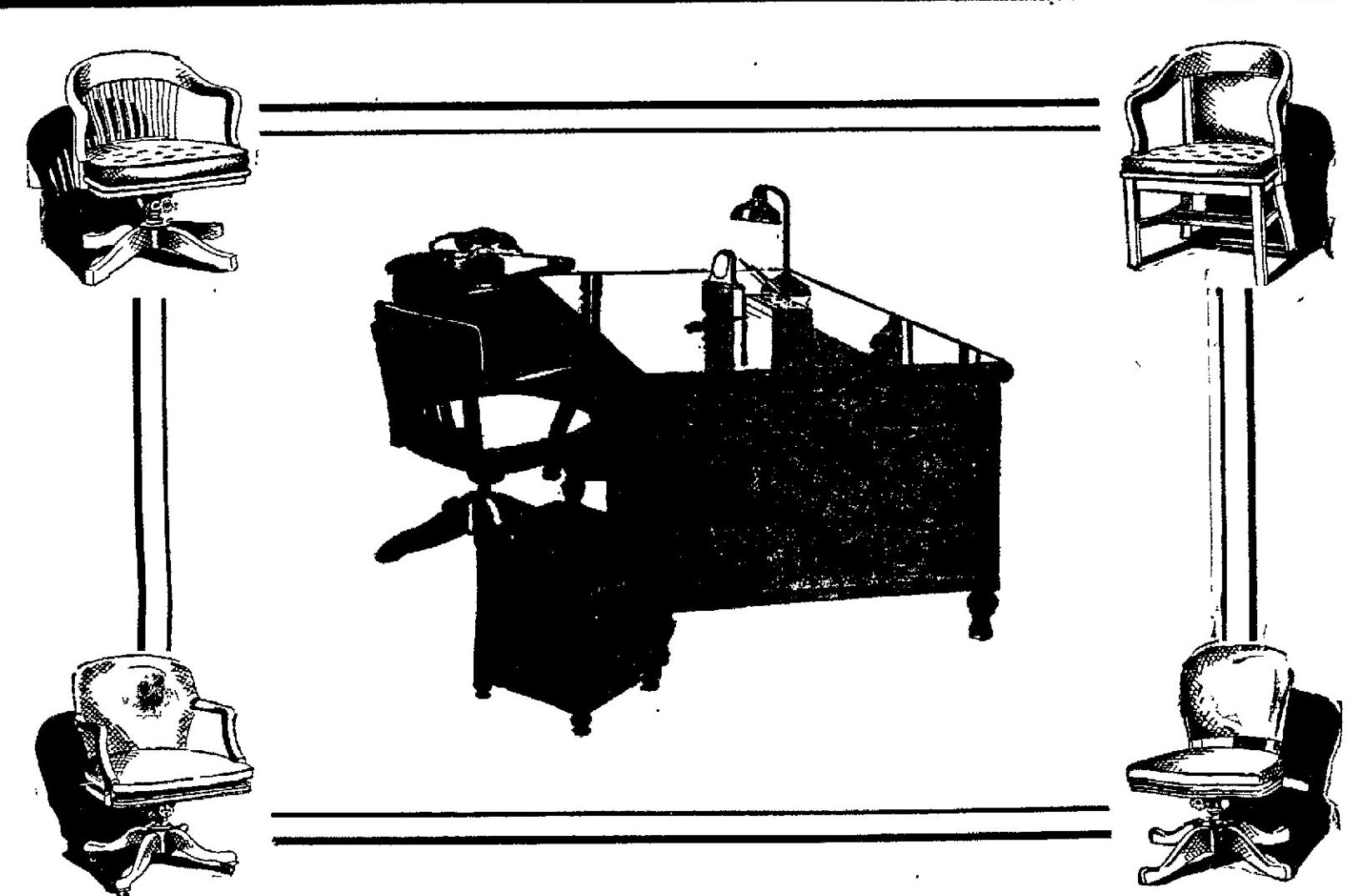
Although electric lights was supplied at first to only three customers, which were two mills and the H. J. Rogers home and later four or five, customers it was not long before the business stores replaced their gas lights with electricity and the Appleton Gas Light Co. received the city's permission to string wires and substitute electric for gas lights in the city.

Within a few years the entire complexity of the city had changed, with a railway taking a part in the city's development, electricity superseding gas lights, and city problems being solved through its new water works and sewage disposal system.

By 1887 the railway had become an electric system with J. E. Harman as the president of the new company, leading the way for the numerous changes that swiftly followed through the years.

small. In addition much power will be used directly in the home to circulate water over the ice and for circulating the air through the house.

But whatever system finally wins out, direct refrigeration in the home or the use of ice manufactured outside the home, the electrical industry is in for a big boom. And man, in general, is due for a big slice of real comfort, to say nothing of improved health.



Sylvester & Nielsen Inc. Equipment has aided W. M. P. Co. efficiency for years

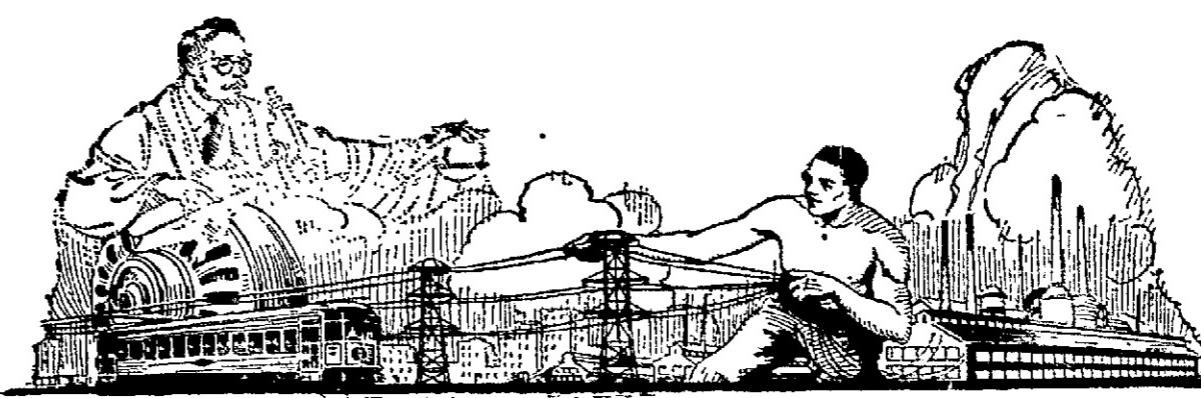
Since the Wisconsin Michigan Power Company first took form in its present organization and under its present name, Sylvester & Nielsen Inc. have been active in building up the office efficiency of this great organization.

Today, office furniture throughout has been supplied and installed by Sylvester & Nielsen. Office equipment has been purchased through us and placed under our direction. Office supplies from Sylvester & Nielsen are constantly being used. In branch offices you will find the same situation to prevail.

It has been a real pleasure to serve in this capacity and it gives us, consequently, further pleasure to witness the celebration which is of so much importance to the city in which we do business. To the Wisconsin Michigan Power Company and the Wisconsin Public Utilities Association, our congratulations.

Art Metal Desks
and Files
Art Metal Safes
Aluminum Chairs
Wood Desks and
Chairs
I-P Loose Leaf Devices
Webster's Carbon
Paper and Ribbons
Y & E Folders and
Guides
Sanford's Ink
and Paste
PAPER, All Weights
and Sizes

SYLVESTER & NIELSEN
OFFICE FURNITURE & OFFICE SUPPLIES
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congratulations

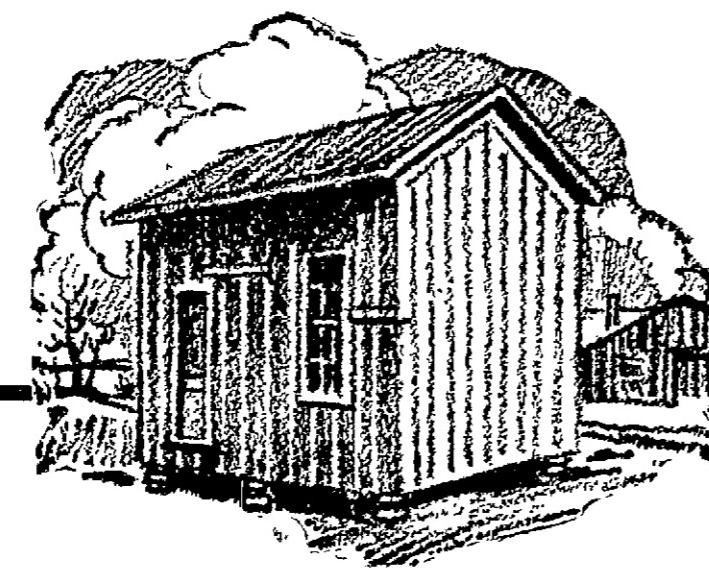
Wisconsin Michigan Power Company

To the courageous example of the early pioneers in establishing the world's first hydro-electric central station in Appleton September 30, 1882, is traceable the development of the modern electric power and lighting industry of Wisconsin.

To Wisconsin Michigan Power Company, direct successor of the pioneer electric utility of 1882, this golden anniversary observance is an important milestone in a most useful career.

It is with pride and with pleasure that we congratulate our associated utility, Wisconsin Michigan Power Company, on this gala occasion.

The
Milwaukee Electric
Railway and Light
Company



Kurz Recalls First Days in Light Plant

Superintendent Chuckles
As He Tells of Early
Experiences

"Sure, I was there when the first lights went on. I can remember it as though it was yesterday. The first dynamo was down there in the beater room of the old Appleton Paper and Pulp mill—right there where that old rake factory used to stand. W. D. Kurz, superintendent of Appleton's first electric light plant, peered over the tops of his half-moon glasses and pointed his still steady finger at a photograph of the upper dam of the Fox river.

"No, there wasn't any fuss about turning on the first light—you see, no one knew just when the first was going to burn. We started in the morning to connect the wires to the dynamo, but we didn't get them connected right until after dark. We'd try the wires this way and that way, sort of trial and error method. We even used batteries to magnetize the machine, but that didn't help. It looked like the thing wasn't made to run, and then all of a sudden there was a dull glow in the two lights in the beater room. When the carbon got a little red we were as happy as boys with new rubber boots. 'We got the light! We got the light!' everyone cried. Then we speeded up the dynamo and the lights became brighter. There was no instrument to judge what candlepower it was, so we judged by looking at it. We could tell when it was too bright or too dim. And there was no way of controlling the heat of the dynamo. That first day the bearings would heat up and we kept cooling them with oil and water so they wouldn't get too hot."

No "Big Shots" There
"Who was there besides myself? Well, there was F. H. Soden from the Western Edison Light company, and some other men that were putting in the wires, but I don't remember their names. The big shots? No, they weren't there—they were afraid to be around while we were experimenting. You see, nobody knew what would happen. And we didn't make any noise about what we were trying to do because we didn't know how it was going to turn out."

That was on Aug. 20, 1882. I remember the date because it was a short time after my birthday and that's on July 26. At that time the dynamo was connected to the shaft that ran the beater in the paper mill, and both of them were run by the same water wheel. The speed of the beater shaft varied considerably and when it would go down the light would go down, and get red, and when it went faster the light would run way above its rated candlepower. We couldn't stay connected to the beater shaft because the carbon in the lamps burned out too often, and lamps in those days cost \$1.60 apiece. Every evening I'd go around to the mills with a basket to collect the lamps that had burned out. They were guaranteed for 400 hours, but we didn't get more than 100 hours out of each lamp. Then the carbon was made of bamboo fibre. Later carbonized silk was used, and now they're all made out of tungsten.

"After about a month, it was on Sept. 30, I guess, we moved the dynamo from the beater room to the old office of the Appleton Pulp and Paper company next to the mill, where we could have a separate water wheel and control the speed. We moved during the day time and lost no light. At that time there was electricity only at night, because no power was generated during the daytime.

Build Second Plant
"Then in March, 1883, the following spring the plant that is now being reproduced was built at the foot of the Lawe-st bridge, so mills and

1st Superintendent



Months Spent in Hunt for Relics Of First Station

Committee Scours Country
For Equipment to Put
In Replica Plant

(Continued from Page 26)

side of the flume open for inspection purposes.

The next problem and probably the most difficult one in connection with the reproduction was that of getting equipment like that in the original plant in every detail. A search for an old style Elmer water wheel was begun and practically every old hydro plant site within a radius of one hundred and fifty to two hundred miles around Appleton was visited. Old timers everywhere were sought out and conferred with. Foundries and junk yards were inspected and produced some interesting relics, but none just the wheel that was wanted. An effort was made to find the original patterns at the Appleton Machine Company which in the early eighties was known as Morgan and Bassett and manufactured the Elmer type of wheel which was being searched for. When hope of finding the unit had been almost completely given up, an old resident of Waupaca was contacted and he produced a unit from his old planing mill which he knew to be forty-five years old and which had been removed because of inadequate capacity. Upon being advised that we must find a wheel at least five or ten years older than the one he had we were informed that possibly such a wheel could be found at a point in the Crystal River where he remembered having played around in an old grist mill which must have stood at the site at least ten years before the time his unit was installed. This resident of Waupaca was able to tell almost exactly the spot where the mill had once stood and he also remembered vaguely that a wheel at one time lay in the river bed with the coupling sticking part way out of the water. A little search and the exposed coupling together with a mass of junk covered with rust was found.

"Oh, yes, one of the Lawrence societies, the Philaletheans, put in electricity too. And then the other society, the Phoenix, their rivals, cut the wires. So the Philaletheans dug way down and cut gas pipes that ran into the Phoenix room.

"The Appleton Pulp and Paper company, Tioga, Vulcan and Atlas mills, the Appleton Water works, H. J. Rogers—he was manager of the Appleton Pulp and Paper mill—George Miller, F. H. Blood, and Colonel N. E. Morgan homes got power from the first plant. The Waverly house was connected later.

"In 1882 the two plants moved to the central station and two more dynamos of 160 volts each were set up. The first ones were only 125 volts. The bigger machines were put in because they were trying to feed the uptown district. And that change was made without any interruption in the light, because the new dynamos were hooked up first.

"That was the first time we had any kind of an instrument to test the candlepower. The Howell potential indicator, it was called. It told when the power was too high, but didn't tell how much too high. Until we got to the central station we didn't run in the day time, and so the lights in the mills were never turned off. The lights went on only when the dynamos stopped. Nobody ever thought of turning off the lights—they figured they were paying for them they might as well keep them lit.

"What did they charge in those days? Well, you know, we didn't know what to charge for lights. At first we had a flat rate. In the mills it was \$2 a lamp per month for each lamp, for 15 hours each night. The residence rate was \$0.25 for the six summer months, and \$1.50 for the six winter months. In sleeping rooms we charged only \$3 a year, because of course they weren't used as much as in other rooms.

"But when we got into the central station we put in meters. Those first ones were small bottles with two inch plates in each bottle. The plates were immersed in mercury and then scraped smooth. When the meter was checked the losing

(Turn to Page 31, Col. 4)

Institute was contacted through James Bishop, known to all members of the committee, and an appointment to visit the Institute was definitely decided upon. It was felt that while we might not secure a machine, at least we could get sufficient information, photographs, and detailed measurements to reproduce a dummy machine of wood and have it resemble the real one. It was finally decided upon that Mr. Pond and Mr. Schubert make a trip to Detroit and this was arranged for about the middle of June.

Ford Is Pleased

Meanwhile Mr. Bishop had informed Mr. Ford of the desires of our committee and the fact that the Wisconsin Utilities association working with the power company wanted very much to reproduce the original Appleton plant and have it as close to the original site as possible. Mr. Ford immediately became interested and upon arrival of Mr. Pond and Mr. Schubert in Detroit they were accorded an interview by Mr. Henry Ford, his secretary, Mr. Leibold, and Mr. Bishop. Mr. Ford appeared very enthusiastic when told of our plans and also of our needs and he expressed the opinion that if the

community was interested enough to want a monument of the kind that Appleton wanted, he would willingly cooperate to bring about the desired result. Mr. Ford not only agreed to supply one of the Type K machines from his museum, but to put it in first class condition in the shop at River Rouge and then send it via truck to Appleton. Mr. Ford went a step further and stated that in order to make the illumination as nearly like that of 1882 he would furnish a sufficient number of electric lights of the exact type used in the original Appleton Edison Light Company's plant. These lights he stated would be made by a man associated with Mr. Edison when he invented the lamp, namely Francis Jehl now of the Edison Institute of Technology. Mr. Ford no doubt deserves commendation from the city of Appleton for having made possible a real operating monument in our community. Spurred on by the generous offer of Mr. Ford and the kind help of his assistant, Mr. Bishop, the committee felt that it could leave no work undone toward making the plant the best possible.

All of the old mills in the Fox River valley were visited and in-

spected in an effort to locate bearings, shafting, pulleys, bull gears, and the like made as close to the date of 1882 as possible. Some equipment was secured through the kindness of C. B. Clark and taken from the Nicolet Paper Company's mill at De Pere. Some was obtained from a local junk yard and that remaining unfound was made after a very diligent search for patterns by Carlton Saecker of the Appleton Machine Company, formerly Morgan and Bassett. The bearing pedestals, bearings, and an operating rack were all made from some of the original patterns of Morgan and Bassett and machined in the plant of the Appleton Machine Company and the shop of the Wisconsin Michigan Power company. The lightning arresters, sockets, wiring knobs, receptacles, cords, and lamp posts were all made in the transformer shop of the Wisconsin Michigan Power company according to specifications provided by Mr. Kurz and from early photographs. The drop cord with a wooden socket hung at about the middle of the plant and served as a volt meter. If the intensity of the light was bright enough the operator concluded that the voltage on the system was O.

K.; if it was not bright enough, then he would regulate his machinery until his eye was again pleased with the brilliancy. The early lamp posts present a rather interesting picture and are made up simply of cedar posts with an arch of iron above the top under which is hung an inverted dish pan. Inside of the dish pan is a wooden receptacle with open binding post to which the lead-in wires are attached.

The wiring for the plant was made up especially by the American Electrical Works and the Nehring Electrical Works. The wire was patterned after some taken from the old Priest residence on Cherry and Prospect Streets which was formerly the old H. J. Rogers homestead and was the first electricity lighted house receiving lighting service from a central station. The conductor is of copper with a cotton twisted braid on the outside which is covered with a white compound. The wire is placed in service. The plant is complete in every detail and will be operated so that illumination will come from the old type K generator built over fifty years ago.

Even the street sign showing Vulcan Street appears on the front side of the building.

residences in the other end of the town could be connected. The dynamo in that plant generated power for 250 16-candle power lights. The Fox River paper mill, the old blast furnace, Patten Paper mill, the Flax mill, Patten's Pulp mill, the A. I. Smith, H. D. Smith, H. E. Miles, Bottensell—I don't remember his first name—F. J. Harwood, and John R. Wood—I put in that writing myself—and the H. D. Smiley homes were served from this second plant.

"Oh, yes, one of the Lawrence societies, the Philaletheans, put in electricity too. And then the other society, the Phoenix, their rivals, cut the wires. So the Philaletheans dug way down and cut gas pipes that ran into the Phoenix room.

"The Appleton Pulp and Paper company, Tioga, Vulcan and Atlas mills, the Appleton Water works, H. J. Rogers—he was manager of the Appleton Pulp and Paper mill—George Miller, F. H. Blood, and Colonel N. E. Morgan homes got power from the first plant. The Waverly house was connected later.

"Find The Owner
The next task was to find the owner and secure possession. To accomplish this it was almost necessary to buy ox yokes, old lanterns, and old harness from the natives for exhibition in this so-called proposed museum. Finally it was found that the machine belonged to the Waupaca Electric Light & Power Company and immediately the manager, Benjamin Roach, was approached and told of the honorable position to which it was hoped to elevate his water wheel. Mr. Roach without hesitation willingly gave the unit for exhibition in the hydro plant at Appleton where it now stands. The wheel as installed in the plant bears little resemblance to the one found in the Crystal River. Complete dismantling was necessary after which all castings and parts were thoroughly sandblasted to clean off the rust and scale. Old bolts were drilled out and replaced with new ones. Patterns for broken castings were made and new pieces supplied. All this was done in the machine shop of the Wisconsin Michigan Power company by its own employees.

Dynamo Needed
The next major piece of equipment that had to be secured was the 100 lamp, Type K Edison bipolar generator. The original machine at Appleton having been destroyed by fire there was no chance, of course, that such equipment could be found in the Fox River valley. The only known Type K generators in existence were in possession of Henry Ford at the Edison Institute of Technology. To actually secure one of these machines from Mr. Ford seemed like a far-fetched job. However, the

to the Wisconsin Utilities Association and the Wisconsin Michigan Power Company

We extend our congratulations, upon the occasion of commemorating the starting of the World's First Hydro-Electric Plant at Appleton, September 30, 1882.

During this interval of fifty years, it has been our privilege and pleasure to serve many of the State's leading industries, especially those located in the Fox River Valley, including the Wisconsin Michigan Power Company, and because of our activities during that long period in the construction of modern industrial and municipal buildings, dams, bridges and hydro-electric stations, we feel particularly gratified for the small part which we have played in water power development since the memorable date of September 30, 1882, and which is now being fittingly celebrated.

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Pioneer Work Still Going on In Electricity

Tremendous Difficulties Encountered in Extending Power Lines

Hunters, fishermen and tourists who enjoy roaming in the wilderness of northern Wisconsin and the upper peninsula perhaps cast only a casual glance at the miles of poles and high tension wires which span that vast territory—but to the “cruisers” and engineers of the Wisconsin Michigan Power Co., they represent monuments to years of pioneering and back breaking toil.

There's a life of adventure, and perhaps no other group of men is better able to understand the hardships of the early pioneers. They experience nature in all its glory and the elements at their worst as the unending task of carrying electrical energy into this wilderness continues.

For days they trudge through the muck of swamp lands, sometimes wading up to their hips, and for hours they fashion crude rafts on which to navigate water barriers. Huge trees must be felled, undergrowth cleared, and fast flowing rapids forded as these engineers and “cruisers” penetrate the wilds of the north woods.

Although the cold winter months are to the advantage of engineers and surveyors, the hardships are more severe. Merciless blizzards and frigid blasts some times keep these men imprisoned in their huts for days at a time, and often the expeditions are forced to keep warm in their small tents during the winter storms.

But during the winter the swamps can be penetrated more easily because the muck and water is a solid frozen mass. Rivers and lakes can be crossed with ease and the men can travel greater distances on skis or snowshoes.

Nature In The Rough

Occasionally when the winter is severe, these men meet hungry wolves, bob-cats and other wild animals, but such experiences add to the enjoyment of the adventurers.

They know every trout stream and are personally acquainted with some of the prize denizens of the creeks and fast flowing rivers.

They toss their baits into lakes where artificial tackle never before has been seen, and muskellunge and other large game fish dwell.

At night the forests and valleys ring with the laughter and shouts of these adventurers as they spend their leisure hours around the campfire or rustic stoves playing



The spirit of the pioneer still burns brightly in the electrical industry as it presses its copper nerves into virgin territory. The picture above shows some of the difficulties encountered by these modern pioneers as they push their lines into the wilderness.

“power company rummy” or spin yarns about their day's experiences. During the winter months they spend the idle hours over weekends, building feeding stations for birds, skiing or hunting.

They may be engineers by profession but it is only a short time before the most of them are experienced archeologists, botanists or geologists. Their jaunts through the wilds often reveal the many freaks and curiosities of nature, and many of the homes of the “cruisers” and engineers have been transformed into natural museums.

On the trail they find Indian relics, traces of copper and iron

ore in odd sizes and shapes, unique plant life, queer tree formations and hundreds of other things which are both educational and amusing. Occasionally they are confronted by snakes, but few venomous reptiles, except the rattlesnake have been discovered.

Fight Fires

Many times they are called to assist fire rangers in battling fierce forest fires. On several occasions power company engineers and “cruisers” have served in the capacities of fire fighters for days at a time, such conflagrations endan-

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W. D. Kurz Recalls Opening of Plant

First Superintendent Chuckles as He Relives Old Days

(Continued from Page 30)

zinc plate was weighed, always in grams and miligrams, and the difference between the weight when it went into the bottle and when it came out showed how much light was used. Two bottles were always used, so one could be a check on the other. Because the bottles might burst from the cold there was a lamp in the meter to keep it warm. Only one-nine hundred and seventy-fourths of the whole current was diverted through the bottles. The rate was set at one cent an hour for each 16-candle power light.

“In those days bedrooms had 10-candle power lights, and other rooms used 16-candle power lamps. How did they turn off? Oh, in those days you had to use a key to turn off a light. Direct current was used then, now its all alternating current. And the fuse plugs were wood, with a little piece of lead in them.

“Lamps were so expensive then that I always kept new lamps in a barrel under my desk. I moved out of that office into another one because somebody kept putting those barrels of lamps out in the stock room.

I remember at the first annual meeting of the company—it was called the Appleton Edison Light company—there was an expense bill for \$2,100 from the Western Edison Light Co. that the company had to pay. You see, during that first year travelers with new improvements on electric light plants kept coming here to try them, and they'd always stay at the Waverly house, because that was the best hotel in town in those days. I said one day, ‘Who is going to pay for all these trips?’ And one of the directors said, ‘Well, if it's for better light I guess we'll have to pay it,’ and they did.

“Lots of funny things used to happen down there in that first plant. There were always lots of visitors, and one time, I recall, a lady with hoop skirts—they all wore hoop skirts in those days—got too close to the machine and the magnet drew her skirt into the dynamo. It took all the power the men had to get that skirt off the machine. Of course, we could have shut down the dynamo, but we didn't like to cut off the light.

“Some try to say that the Pearl-st plant was started before this one, but that isn't true. I had a letter from the manager of the Pearl-st station in New York, telling us to hold off until the Pearl-st station got in operation, and when I got that letter we had been running for three weeks.”

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Clintonville Wisconsin Power & Light Co.

Appleton Has High Niche in Tower of Fame

Courage and Faith of its Pioneers Reflected Glory on City

BY LOUISE P. KELLOGG

(Historian, Wis. Historical Soc.) The faith of Wisconsin business men in the epochal inventions of the nineteenth century is illustrated by the action of a group of Appleton citizens with regard to the electric light. Thomas A. Edison had been for some time developing the incandescent electric light, machines and apparatus for supplying power for this purpose. In the winter of 1880-81 a central station for demonstration purposes was in operation at Menlo Park, New Jersey; in the year 1882 the Edison central station utility was available for public use. The first commercial central station was erected in London and put into service in April of that year, but did not become a permanent institution in the English metropolis. Before that time, however, plans were being carried out for the utilization of this means of lighting in the United States. In December, 1880, the Edison Electric Illuminating Company of New York was organized, the first corporation on a permanent basis to develop the Edison central station system. In May of the next year property in Pearl Street, New York City, was acquired, and the work of laying the underground conductors was begun. Not until September 4, 1882, was the Pearl Street station placed in permanent occupation.

Start In West

Meanwhile the Western Edison Electric Light Company of Chicago had been incorporated May 25, 1882, under the laws of Illinois, with territorial rights for Illinois, Wisconsin, and Iowa. This company was the predecessor of the present Commonwealth Edison Company. A group of Appleton mill owners and citizens had the enterprise and the foresight to experiment with this new system of lighting, and thus to make their city of note in the annals of electricity.

Some time in July one of the engineers of the Western Edison Light Company, P. D. Johnston, was invited to Appleton to explain the new lighting system to a group of its business men of whom H. J. Rogers was the leader. Rogers who was the president of the Appleton Paper and Pulp Company, was at the time building a new residence on Prospect Avenue on the heights overlooking the river; he and his associates became very much interested and determined to test the possibilities of electricity for lighting both their mills and their homes. They hoped in time to ex-

tend its use still farther for the Crescent said, "Some of our capitalists are determined to light College Avenue by electricity if they pay for it themselves."

After satisfying themselves by examination that the new system was practicable, the Appleton investors entered into a contract with the Western Edison Light Company for two Edison "K" dynamos of a capacity to carry 550 lamps, to be driven by water power. This contract was signed August 18, and some time after that Edward T. Ames, a construction man and electrician, was sent from Chicago to install the plant in the paper company's property.

The historical question at issue has been the length of time required for the wiring and adjusting, and the date on which the power was first successfully applied to produce light. It has been stated on high authority that the Appleton plant was the first central lighting plant opened in the United States. The Pearl Street generating station in New York City was, as we have seen, opened September 4, 1882. Some of the claimants for the Appleton priority have asserted that this plant began operations as early as August. The finding of the record of the contract in the Commonwealth Edison Company's files, and the contemporary statements of the local press, prove that it took nearly six weeks to install the first dynamo in the paper mill near the upper dam at Appleton. Although not the first in the United States, the Appleton system was the earliest in use in the West, and the first to be operated by water power.

Wire Two Mills

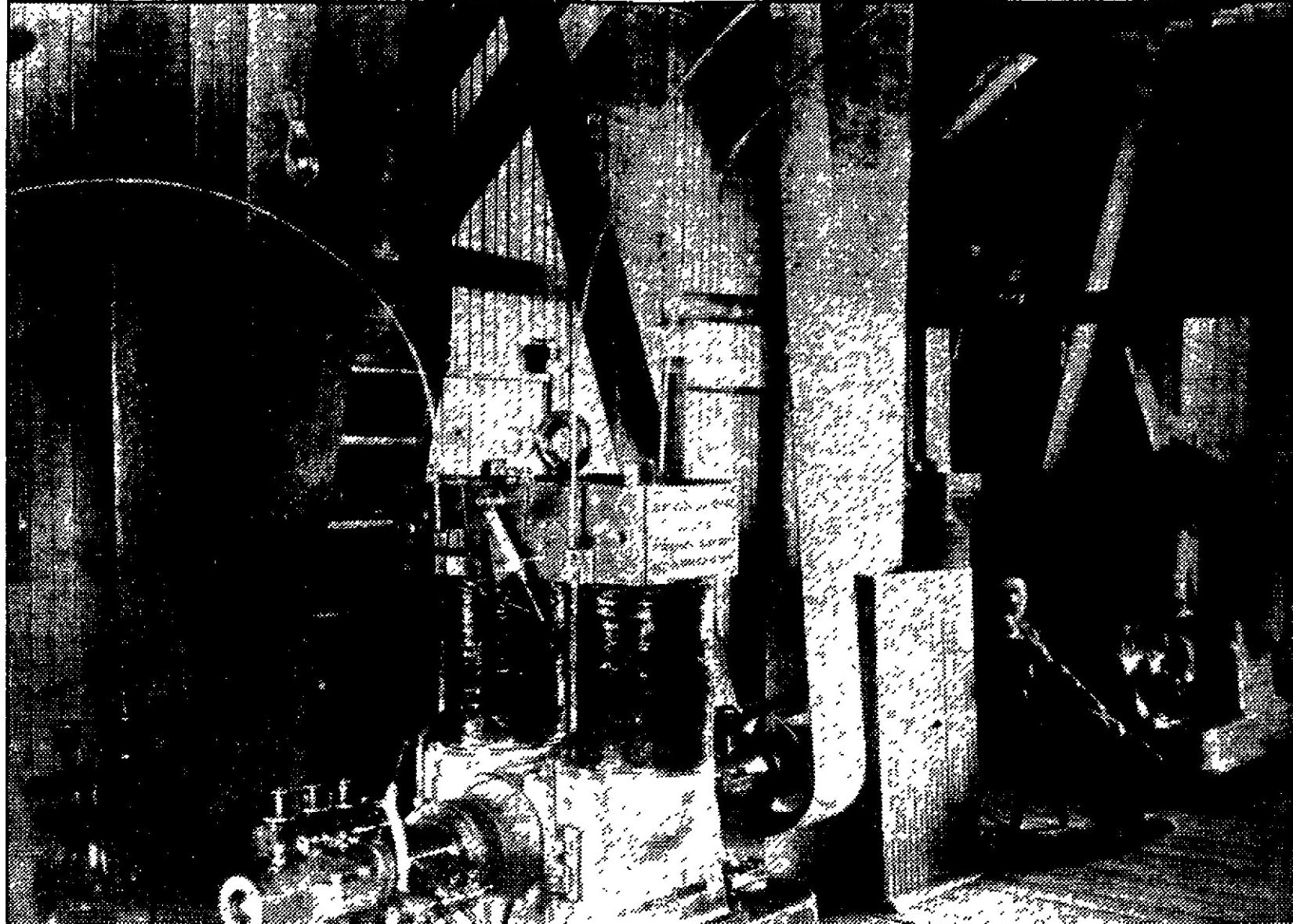
The mill in which Mr. Ames installed the first dynamo in the West was what was known as a beater mill, containing two new beating machines recently acquired by the paper company. Both this mill and another belonging to the same company a mile farther east were wired, as well as the new residence of President Rogers.

About this time a rumor circulated throughout the city that Mr. Rogers, who was president of the local gas company, was merely buying the electric rights in order to keep them from competing with his gas business, and that there was no intention of actually utilizing the contract with the Edison people for lighting purposes. Investigation proved this to be an idle rumor. Early in September the reporter sent to examine the matter found that both the mill and the Rogers residence were being wired and "if it (the electric light) proves an unquestioned success, as of course it cannot fail to, then the

(Turn to Page 35, Col. 2)

Here is pictured one of Appleton's long list of historic power plants. The lower picture shows the central station erected in the early nineties to house equipment moved from two plants started several years earlier and the upper picture shows the interior of this plant which stood about where the present garage of the Wisconsin Michigan Power Co. is located.

POWER PLANTS OF A GENERATION LONG SINCE PAST



Edison's Light Marked Start Of Another Era

Celebration Tomorrow in Fulfilment of Inventor's Prediction

(Continued from Page 28)

seems he invented the things he needed as he went along. On Sept. 19, 1882, about two weeks before the opening of the Appleton plant, he received 31 patents, the largest number issued one man at one time. But Edison wasn't alone in his need for invention. The men who erected the plant here also were confronted with the same problems and many a minor invention here was born from the necessity for it. But Edison had the way quite well prepared. Up to Sept. 1, 1882, he had received about 225 patents dealing with lamps, dynamos and methods of distributing electricity. They included switches, conductors, fuses, methods of wiring and electroliers.

Built Big Dynamos

There were dynamos before Edison began his incandescent lamp researches but they were inefficient. He designed and built his own and to his own astonishment obtained efficiencies as high as 90 per cent—that is he lost only 10 per cent of the mechanical energy required to turn their armatures. No one had ever dared to build dynamos so large.

As usual, when Edison was working at fever heat he spared neither himself or his associates. While he was developing his inventions he slept in the laboratory, often throwing himself on a box of tubes to snatch a few hours of rest so he could keep going. Some of his men were unable to keep pace and two Germans, assisting him with his experiments in a dark basement, contracted diphtheria and died. But Edison worked so hard and thought out his plan so carefully that many of the appliances and the principles that he used in these first installations still are being used today.

From the beginning Edison was all for direct current. The generators installed in Appleton were of that type, although the inventor knew full well that at the most he couldn't send direct current more than three or four miles.

It was George Westinghouse who waged the battle of the alternating current and won it. For years engineers spoke of the Edison and Westinghouse systems. Others, among them Elihu Thomson, were as convinced as was Westinghouse that the future belonged to alternating current.

The introduction of alternating current depended on an efficient transformer. Westinghouse imported Gaulard and Gibbs transformers and found them much too inefficient. The process of stepping the voltage up or down was attended

Find Ancient Bill for Electric Service Here
One of the oldest electrical service bills now in existence, was issued March 1, 1884, by the Appleton Edison Electric Light company to J. R. Wood, 741 E. John-st. Officials of the company, according to the heading of the statement, were A. L. Smith, president and general manager, and C. A. Beveridge, secretary and treasurer.

This bill is for wiring the Wood residence during September, October and November, 1883, and for electrical service during November and December, 1883, and January and February, 1884. The cost of wiring the residence was \$61.39 while the cost of materials and lights was \$267.90. The house was equipped with 14 fixtures capable of holding 19 lamps, with eight switches. Labor was itemized at 23 cents per hour.

The cost of electrical power for the four months covered in the statement was: November, \$2.02, December, January and February, \$6.25 each.

by almost ruinous losses. A brilliant young engineer, William Stanley Jr., was engaged to redesign the apparatus, which amounted almost to reinvention. Elihu Thomson developed his own successful transformer. Nikola Tesla supplied the alternating current machinery, especially the indispensable alternating current motor now so widely used, and the progression to modern central station practice was complete.

The outcome of all this work was the successful transmission of electricity to distances that would have seemed fantastic fifty years ago. It would be impossible for Niagara Falls, where Westinghouse achieved his early successes, to supply electric energy for a district covering hundreds of square miles on the direct-current principle. Edison designed his first stations to generate and transmit direct current at 110 volts. Today alternating current is shot over wires 250 miles long at 220,000 volts.

Even if central station practice is not what it was when Edison was creating the first public utility for retailing electricity he was unquestionably the father of what we see about us. There is not a community of more than 1,000 without electric service. The stations of today, generating 46,000,000 horsepower in this country alone, are in a sense the direct descendants of the little Vulcan Street plant that created a new industry.

Fans' Use Expands
Fans run by electricity have long been used in homes, offices and factories. But new uses for them are being devised daily. Once used almost exclusively in hot weather, fans are now finding a place in distributing heat in the winter and in humidifying machinery.

Below London there is a natural underground reservoir of water stretching about 39 miles north and south of the city and about the same distance east and west.

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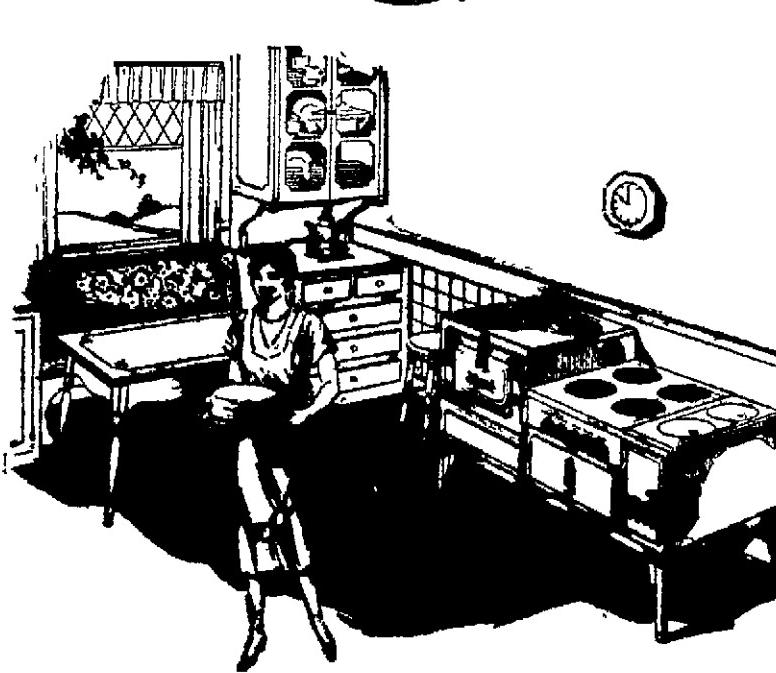
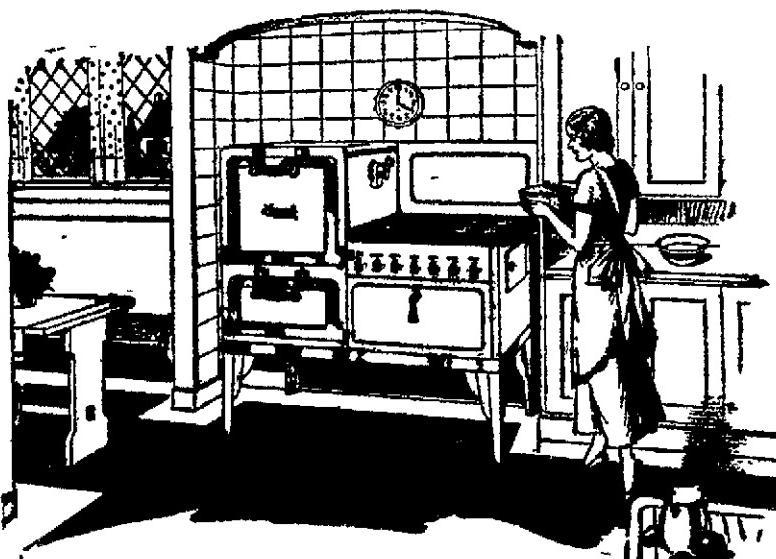
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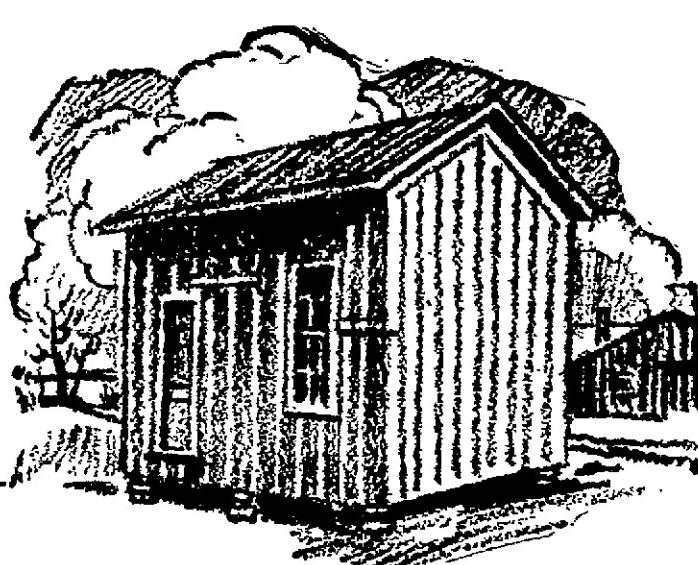


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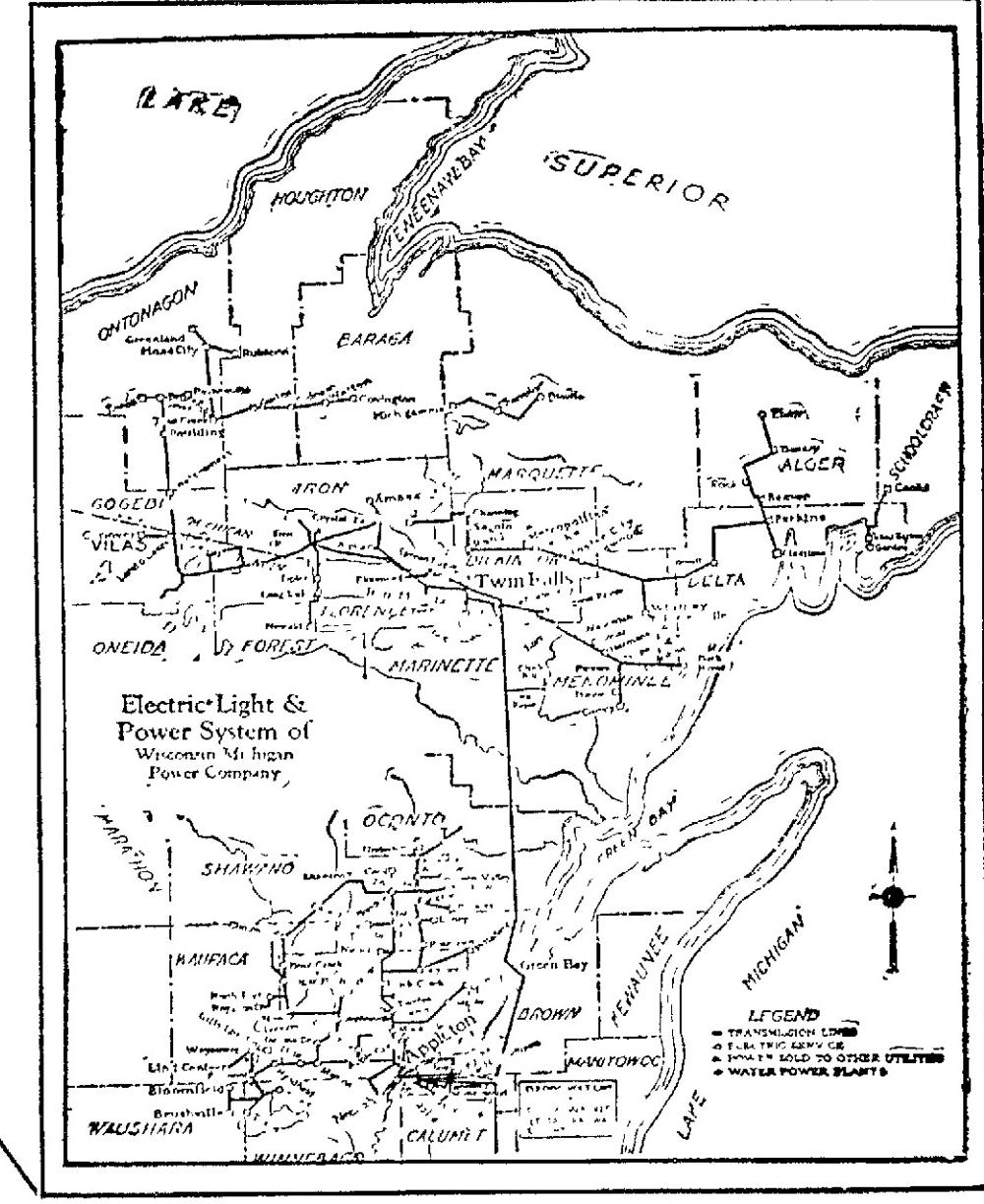
congratulations

**Wisconsin Michigan
Power Company**

The pioneer spirit that moved courageous and far-sighted citizens of Appleton to establish the world's first hydro-electric central station in 1882, has inspired their successors in developing the present modern and far-reaching electric light and power system of Wisconsin Michigan Power Company.

We heartily congratulate our associated utility, Wisconsin Michigan Power Company, on the progress it has achieved upon the modest but sound foundation laid fifty years ago.

**Wisconsin
Gas and Electric
Company**
Racine, Wisconsin



Power Co. Is Proud of its 25 Veterans

More Than Score of Em- ployees With Company for Twenty Years or More

Twenty-five veterans—men who have served 20 or more years with the Wisconsin Michigan Power Co. or companies which preceded this corporation, are on the power company honor roll. Some of these men soon will attain 40 years of service when they will be recognized as double-veterans.

Abandonment of the power company interurban and local street car lines somewhat affected the veteran motormen and conductors. Some of these veterans are still in the employ of the firm in other capacities, while others have retired with 20 or more years service records.

John McCarter, operating engineer at the new power plant entered the employ of the Citizens Electric Light and Power Co. in 1895, and since that time has been connected with the various electric power plants in this city.

Mr. McCarter vividly recalls the first little steam plant, and the Edison plant on the government canal. He remembers the construction of the first large plant when the company was known as the Wisconsin Traction, Light, Heat and Power Co.

Second in length of service is Frank Bomier, power company trouble man. He entered the employ of the utility in 1896 and his duties consisted of reading and setting meters.

George Mensinger, who entered the employ of the company in 1897 was motorman on the first old street railways and later was conductor on the newer lines until they were abandoned. He is now a night watchman.

Started As Carpenter

On August 13, 1897, John W. Stark entered the employ of the company as a carpenter at the car barns. After serving as carpenter for a time he was promoted to master mechanic. He is now employed as a carpenter in the shops.

Mike Quinn, one of the first and last conductors on the interurban car lines entered the employ of the utility on June 19, 1898.

On the same date, Robert McGillan entered the employ of the company as car line operator, being employed on the interurban line between Neenah and Kaukauna. When the line was abandoned he was employed as helper in the company garage, a position which he still holds.

George Lausman began his duties in the employ of the firm on June 16, 1898 as one of the first street car conductors. He is still in the employ of the company serving in the capacity of collector and special investigator.

In 1898 A. K. Ellis, vice president and general manager of the Wisconsin Michigan Power Co. came to Appleton as barn foreman and master mechanic under W. H. Holcomb, then superintendent of the Fox River Valley Electric Railway Co.

Shortly after the newly organized Wisconsin Traction, Light and Power Co. took over the Appleton Street Railway, Appleton Electric Light and Power Co. and the Fox River Valley Electric Rail-

These Men Are Veterans In Service Of Power Company



More than 700 years of service for the Wisconsin Michigan Power Co. and its predecessors are represented by this group of veteran employees, all of whom have been with the company 20 years or more. The group picture was made a few years ago when the veterans went to Milwaukee to be feted by their employer. In the group, reading from left to right the men are:

Back row—George Mensinger, Matt Bauer, Herman Eggert, John W. Stark, John McCarter, Ras Willarson, Gus Kutz, Frank Bomier, H. C. Parks.

Individual pictures are, beginning with the top row—John Voge, Herman Reinke.

Middle row—Charles Reffke, William VanRyke, J. B. Stark, George Lausman, Charles Roller.

Bottom row—Frank Probst, Frank Bayer, Joseph Probst.

way Co., Holcomb left and Mr. Ellis took over his job.

Later Mr. Ellis became superintendent of the railway, gas and electric departments. He served in that capacity until the company was taken over by the North Charles Reffke first became af-

American Co. in 1920 when he was made general manager. Later he became vice president, general manager and a director of the local company, in which capacities he serves today.

Until the car lines were discon-

tinued Matt Bauer was car repairman at the shops. He entered the employ of the company in 1901. At the present time he is a repair man in the meter department and company garage.

On April 23, 1901, August Verbeck was employed by the company as car repairman and night foreman. When the street car line was abandoned he was employed as night foreman in the garage.

John Voge, who entered the service in 1902 as cashier still holds that position at the main office of the power company. He was first affiliated with the Fox River Valley Gas and Electric Co. as cashier.

Now Superintendent

Frank Probst, superintendent of the gas plant on W. Water st. entered the firm's employ in April, 1905 as a stoker at the gas works. Later he was promoted to foreman of the plant, and a few years later was named plant superintendent.

In 1907 H. C. Parks entered the

employ of the firm as a conductor on the interurban line. He continued in that capacity until the lines were abandoned.

Jack Hughes began as street car motorman in 1897. Later when the lines were abandoned he became a carpenter on the shops. He is now retired from the service.

Starting in 1908, Gustave Kotz began reading gas meters and installing house piping for the company. Today he is foreman of the gas meter, piping and service department.

Handles Busses

Herman Klos became affiliated with the company as motorman in 1909. When the street car service was abandoned he took charge of the company's bus lines as transportation superintendent.

Entering the company's service in 1909, Ras Willarson became a lineman. He worked in that capacity for many years, later being

(Turn to Page 36, Col. 8)

Electricity Opens New Sports Field

Thousands More Will be Able to Enjoy Games Under Lights

Electricity, which has been a boon to man in so many ways also is giving him an opportunity to use more of his leisure time either to watch athletic contests or to play in them. And incidentally it is proving the life saver for many professional and amateur sports.

Football was the first sport to adopt electricity as a means of lighting its gridirons and thereby saving the sport for many colleges and high schools in Wisconsin and the middle west. Marquette university was the first to light its stadium and last fall had a successful season under lights.

Since then numerous high schools, for instance Menasha, have adopted the idea. Baseball is played under lights at Madison and every summer traveling professional teams tour Wisconsin and play under lights. Many Badger cities have lighted their playgrounds and there are hundreds of tennis courts in the state lighted for night play.

The middle west probably was the first section of the country to go in heavily for night games on lighted sports fields. Several Kansas cities were the first to introduce baseball to lights, football took up the idea with several colleges that were forced to compete with universities Saturday afternoons playing on Friday nights.

Night sports have been hampered in the northern states in the middle west only because of low night temperatures. As long as thirty-six years ago experiments were made at night baseball under electric lights. Edward G. Barrow, secretary of the Yankees, recalls the first professional game attempted. He was at that time manager of the Paterson, N. J. team, and a game was played against the Wilmington club at Wilmington, Del., in 1896. This game was played with an indoor ball.

Revived Many Minor Leagues

Night baseball was responsible for the revival of many of the minor leagues some years ago, when golf, tennis and the automobile put many of the smaller leagues of the country out of business.

Starting in 1908, Gustave Kotz began reading gas meters and installing house piping for the company. Today he is foreman of the gas meter, piping and service department.

Outdoor boxing at night has been successfully conducted for many years. While baseball at night is not popular among the ball players, it apparently makes no difference in the physical condition of boxers. Most of Jack Dempsey's championship fights were held un-

Safety First Rules

Power Co. Employees

"Safety First" is the watch-word of every employee of the Wisconsin Michigan Power Co. Iron bound rules are followed closely by employees, especially those in the power plant and linemen, and as a result accidents have been reduced to a minimum.

Among the special rules followed by employees at the power plant are:

"Keep out from under loads by crane at all times."

"Be careful to avoid getting fingers, hands, arms and feet pinched, especially with swinging loads."

"Goggles must be worn when silver soldering or when chipping."

"Be sure of your footing in working around a turbine especially when tightening or loosening nuts."

"Keep all parts and tools out of the way to avoid stumbling."

"Work in a safe, deliberate way and not in a hasty, nervous manner without regard for the other fellow."

Many Sports Played by Electric Light

In New York many professional sports and many amateur events have been played by artificial light. Bicycle and motorcycle races, lacrosse, professional soccer, football and even intercollegiate football are played at night. Temple University in Philadelphia is one of the few colleges in the east where night football games are played.

Marked progress has been made in the lighting facilities, and in many of the less technical sports the progress of the players has not been impaired.

Several years ago night horse racing was tried in New Jersey and also in St. Louis, but the experiment did not last long. Swimming is a popular night sport, and tennis is played at night at many of the clubs.

Some of the fairways on golf courses in Florida have been artificially lighted, and golf matches have been played under electric lights. Athletic meets have been successfully conducted at night on the track at the Yankee Stadium.

Baseball at night has never been permitted in the major leagues.

Woman, 100, Calls

Doctor Once in Life

Lincolnton, N. C.—(O)—Mrs. Susan Abernethy celebrated her 100th birthday here and recalled the days when she was a chum of Mrs. "Stonewall" Jackson.

She says the world is just as good, if not better than in older days; that she enjoys her clay pipe and thinks automobiles and paved roads are "wonderful."

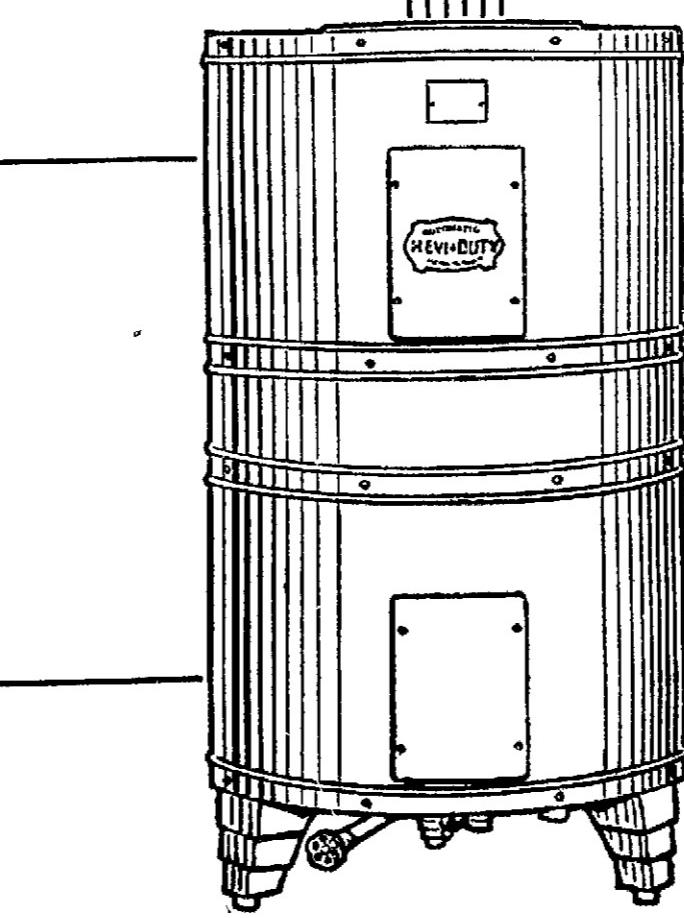
Only once in her life has Mrs. Abernethy been visited by a physician. That was four years ago when she had smallpox, and even then she refused to go to bed.

Congratulations to Wisconsin Michigan Power Company

... on this gala occasion commemorating the fiftieth anniversary of the opening of the world's first hydro-electric central station at Appleton, September 30, 1882.

Hevi-Duty Electric Company also congratulates Wisconsin Michigan Power Company, direct successor of the early Appleton plant, on its continued growth, its progress and its record of achievements in promoting wider uses of electricity, in making electric service more efficient and dependable and in lowering the cost of electric energy.

HEVIDUTY ELECTRIC COMPANY
MILWAUKEE - - - WISCONSIN



HEVIDUTY Electric Water Heaters

Heating water electrically is a new application of electricity in the home which is rapidly spreading. The advantages of automatically controlled, storage type electric water heaters are numerous and appeal to home owners seeking the utmost in convenience and efficiency. Hevi-Duty Electric Company, maker of electric water heaters for homes, is a leading manufacturer of a large line of electric furnaces for various industrial heat treating purposes.

1888 1932

This Span of Time Represents the Years of Service
We Have Seen and Been Connected With the

Electrical Industry in the City of Appleton

These Changes Have Taken Place in This Period

1888—Total capacity of generating plant ... 120 K. W.
1932—Total capacity of generating plant .. 21,500 K. W.
1888—Cost of burning 10—16 C. P. lamps per hour .. 10c
1932—Cost of burning 10—16 C. P. lamps per hour 1.6c
1888—Cost to consumer of 16 C. P. carbon lamps .. 84c
1932—Cost to consumer of 16 C. P. Mazda lamps .. 15c

Congratulations to Those Who Did Their Share
Towards This Accomplishment

Langstadt Electric Co.

E. College Ave. at Durkee St.

APPLETON

Phone 206

Whole World Feels Touch of Edison's Hand

Appleton Has Had Prominent Part in Exploiting His Invention

Appleton, among few cities in the world, holds pioneer claim to the magic touch of the electrical genius of Thomas A. Edison, white haired inventor whom an entire world as well as a nation mourned last October.

The great public service business, for which the foundation was laid by Edison but 52 years ago, started in Appleton 50 years ago this week in the small, box-like wooden structure that housed the first hydro-electrical central plant and the second commercial central station in the world. Almost concurrently with the opening of Edison's Pearl-st steam generating plant, the grandfather of the New York Edison Co., Sept. 4, 1882 in New York city, came the opening of the Appleton Edison Co., Sept. 30, 1882.

Soon after Edison's pioneer work with electric motors and the development of the use of electricity for street railways, Appleton followed closely on the heels of genius with one of the first commercial electric railway systems established here in 1887. The first lighting plant generated by water power developed into the present system of Wisconsin Michigan Power Co., which also took over the street railway system.

Throughout the span of 50 years of fertile invention, the entire world has felt the magic touch of Edison's hands which have shaped an average of one invention every two weeks to encompass the 1,300 odd useful patents issued to the most prolific inventor of today, and perhaps all time.

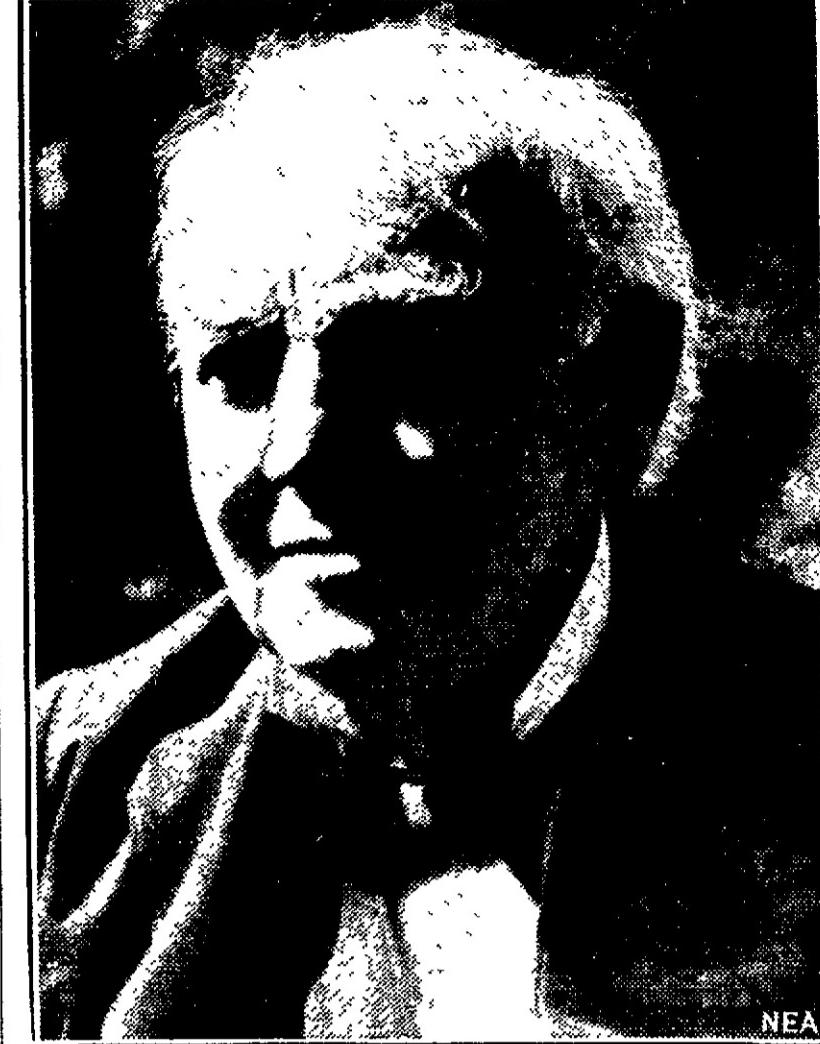
His life ended quietly after years of steady, searching work, with his funeral being held Oct. 21, 1931, on the fifty second anniversary of his invention of the Edison incandescent lamp, which with many of his other inventions, has changed the entire course of the way of living.

Perhaps one of the most startling things about Edison's work and its benefits, was his moulding of other person's impractical ideas into working successes. This is evidenced in his stockholder, his first marketable invention, his perfection of the typewriter, the phonograph, the incandescent lamp, the telegraph system, carbon telephone transmitter, and the motion picture camera, all of which had been worked upon before he perfected them.

Born In Ohio
The small, friendly town of Milan, Ohio, was the birthplace and boyhood home of Edison, where he was born in an age without electricity, telephones, radios, automobiles and electric railroads. This was the age of hoop skirts, covered wagons and journeys made by horseback, since the steam engine had just begun to progress its way up inland rivers, gas lighting was something one saw only in large cities and Morse's invention on electric telegraph was still an experiment.

His early education was given him by his mother, a woman of great culture and education, since he did not attend school with the other children for many years. His boyhood experiences read like those of other children of all time, tempered with a boyish curiosity toward life, which caused him to sit on hen and goose eggs for hours to see if they would hatch, then later to burn down a barn to watch the procedure. Another time, between falling into the canal and nearly drowning and falling into a grain elevator, or skating on the pond, he induced a young boy in the family's employ to swallow

(Turn to Page 43, Col. 1)



THOMAS ALVA EDISON

Appleton Sure of Place in History

Courage and Faith of Pioneers Reflected Glory On Their City

(Continued from Page 32)

light will be substituted generally for gas in all our public and private buildings and the gas will be cheapened, used for heating, cooking, and running light machinery." Thus the Appletonians proved themselves true prophets and ready believers in American inventiveness.

By the twenty-third of September the newspapers announced that one of the generators had arrived, and that a test of the new lights would be made the next week. On Wednesday, the twenty-seventh of the month, all was ready for the test, but upon the application of the power the lights failed to appear. It was supposed that the failure was due to the excessive moisture caused by the steam of the mill, proposals for insulating the copper wires were made. Meanwhile, however, Mr. Ames had been summoned by telegraph from Chicago; he immediately detected some slight error in the arrangements, which he was able to eliminate. Saturday, September 30, the power was once more applied to the dynamos. Then there burst from the hanging pear-shaped globes the pure, steady, incandescent light with which the world has since grown so familiar.

The experiment was an approved success, the faith of the mill owners was justified; so enthusiastic did the observers become that the buildings illuminated were declared to be "as bright as day." About the same time the experiment was tried with gratifying success in the residence of Mr. Rogers. This was the first residence in the West to be exclusively lighted by the Edison system.

Burned Out Lamps
The waterwheel used to drive the dynamo was the same one which

drove the new beating machines, and because of the varying loads carried by the beaters, the speed of the waterwheel and of the dynamo greatly varied. Sometimes the voltage was so high that all the lamps in the circuit were burned out. After a number of experiences of this kind the dynamo was removed to another part of the building and driven by a wheel of its own. The second dynamo called for in the contract was originally installed in the Vulcan mill at the opposite end of the city. But the owners soon decided to erect a central building between the two mills, and a small frame shack was quickly raised to which both dynamos were transferred. This building was the first central station for commercial incandescent light in the West, the precursor of the great generating stations of today found in all our cities.

By December, 1882, three or more residences, five or six mills, and a blast furnace were lighted by the Edison bulbs. The local paper boasted that Appleton then had more electrically lighted buildings than any other city in the United States.

Some of the appliances of the original plant are still in existence, and the first engineer, William D. Kurz, is still engaged in electric service at Appleton. From Mr. Kurz's recollections some of the early experiences in operating the plant are given. There were not meters or gauges of any kind, the operator's eyes being the only gauge. Service was from dusk to daylight only, so all lights came on in the evening as soon as the service was started.

The enterprise of the early Appleton business men has thus been more than justified. "Appleton," writes Mr. T. Commerford Martin, one of the chief collectors of Edisonsiana, "will ever remain high on the list of notable plants, with claims to real distinction that no discovery or conflicting dates can disturb. There is merit and glory enough for every pioneer plant and person in this utterly modern field of advance."

(Reprinted from Wisconsin Magazine of History, December, 1932.)

World Laughed At Edison as he Worked on Light

Scientists Told Him Incandescent Lamp Was "Impossibility"

Oct. 21, 1879.

How many people can tell what epochal event in the world's history occurred on that date. After three guesses the majority will give up and want to know.

It is the date that Thomas A. Edison completed his successful experiments which led to discovery of the incandescent lamp, or the electric light. It was an invention that literally shook the world and brought about some of the greatest changes in industrial progress.

But, though this date marked completion of what the scientific world considered at that time to be an impossible task, the general public knows very little about the months of experiment during

which Edison and his staff of 50 men worked ceaselessly to find out whether electrical current could be subdivided.

Tried Since 1850

At the time Edison took up the task of trying to invent an electric light, the field was one in which experiments had been carried on since 1850. First plain fires, then torches, candles, kerosene lamps and gas had respectively furnished the world with light at night. In 1850 the first machine for generating electricity was invented by Otto von Guericke.

This was followed by great activity on the part of scientists in this field but not until 1745 was the Leyden jar or storage battery discovered by Von Kleist. Then in 1752 Benjamin Franklin in tests drew sparks from a key, at the end of the string which held a kite aloft during a thunder storm. This discovery proved electricity could be transported by means of a cable. In 1791 Sir Humphrey Davy discovered the arc light in London and in 1831 Michael Faraday made the first magneto. Other discoveries in the field followed and in 1878 Edison—who had already invented the phonograph and completed work

on the telephone and telegraph—started work on the project.

Laughed At Him

In 1878 Edison went to Ansonia, Conn., to witness an experiment in arc lighting by William Wallace and M. G. Furner, who were pioneers in the field. Edison seemed never to sleep. Frequently he would relax by playing his organ. The men would sing at their midnight meals which were served in the laboratory. Everyone was working under the highest tension. They all knew that success was so near and yet so far.

Tried Many Filaments

In April, 1879, Edison succeeded in using a platinum filament in a glass bulb and this burned for 25 hours when the air was extracted from the bulb and for four hours with air in the bulb. Platinum, however, was not practical, and Edison set his energies to finding some filament that would be both practical and more substantial.

One material after another was tried without success. Either the material was too brittle and broke before it could be placed in the lamp or it burned out too swiftly or didn't burn at all. Edison was tired. He was sitting at his desk thinking of the 13 months of hard work which had passed and the diminution of his funds.

On the table near his hand, which was tapping the table top,

med with chemicals, cells, instruments and apparatus of every nature and description. Men worked for days at a stretch and Edison seemed never to sleep. Frequently he would relax by playing his organ. The men would sing at their midnight meals which were served in the laboratory. Everyone was working under the highest tension. They all knew that success was so near and yet so far.

Tried Many Thread

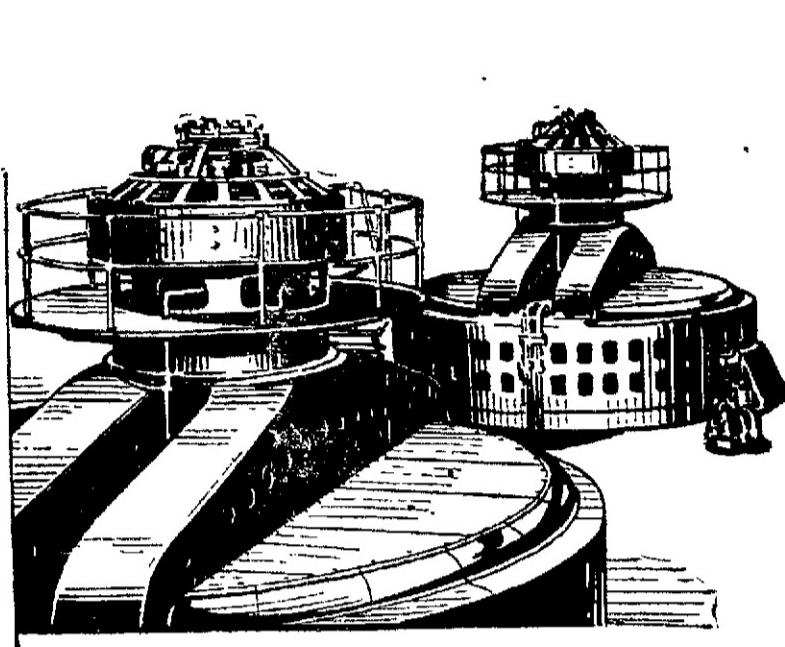
After two days of heart breaking experiments, during which one piece of thread after another would break before it could be inserted in a bulb, a small piece of the material was fastened securely in a bulb. The air was withdrawn by his perfected machinery for creating a vacuum. The light was attached and the current turned on. It burned! The light burned continuously for 45 hours.

Further experiments finally perfected the light. A string of lights was installed in the yard of the laboratories and on New Year's eve, 1879, more than 3,000 prominent people gathered at the home to witness the first public exhibition of the electric light.

wa a small pile of lamp black mixed with tar, which he had been using in experimenting with the telephone transmitter. He picked up a small quantity of the material and began absently rolling it between his fingers. Suddenly he looked down and saw what he was doing. An idea popped into his head. He called for a spool of thread. In that idea lay the success of the electric light.

After two days of heart breaking experiments, during which one piece of thread after another would break before it could be inserted in a bulb, a small piece of the material was fastened securely in a bulb. The air was withdrawn by his perfected machinery for creating a vacuum. The light was attached and the current turned on. It burned! The light burned continuously for 45 hours.

Further experiments finally perfected the light. A string of lights was installed in the yard of the laboratories and on New Year's eve, 1879, more than 3,000 prominent people gathered at the home to witness the first public exhibition of the electric light.



Congratulations City of Appleton

It has been our good fortune to witness the development of hydroelectric power from its very beginning.

The principle of hydraulic power as now utilized with our modern water turbines was recognized more than a thousand years ago, and water wheels, although in a very crude stage, were used for driving machinery such as grist mills, etc., but it is in your City that a turbine was first coupled to a generator for producing electrical energy.

From this start our mighty hydro-electric plants have grown up. The Fox River Valley with its many hydro-electric installations has been a developing ground for hydraulic turbines. Many Allis-Chalmers units are installed in this region, some of them nearly a quarter of a century old.

Allis-Chalmers Manufacturing Company has had an important and leading part in developing hydro-electric power. It is one of the pioneer builders who have adhered to the principle of building hydro-electric units to best meet the operating conditions and it is at the present, the only company in the world capable of designing and constructing under one roof and under one guarantee complete hydro-electric units and holds world records both as to physical size and capacity. These records include every important type, impulse wheels for very high heads, Francis turbines for medium heads, and propeller turbines particularly adapted for developing low heads. The total horsepower of Allis-Chalmers hydraulic turbines produced and in successful operation reaches more than six and a half million.

Not only has Allis-Chalmers Manufacturing Company been prominent in the hydro-electric field but it has also installed more than eleven million horsepower of steam power units and builds machinery for very basic industry.



ALLIS-CHALMERS

MILWAUKEE, WIS. U.S.A.

Nehring Electrical Works

DeKalb, Ill.

Manufacturers of BARE and WEATHERPROOF COPPER WIRE and CABLE for electrical purposes

Big Territory Served From Modern Plant

Worthy Successor to First Hydro Station Is Erected Here

Electrical power—that undescribable force that for many years has baffled the world's most eminent scientists and has revolutionized the universe. Potential electricity has always been known to man in the form of lightning, but it took hundreds of years to invent methods of creating and harnessing that mysterious force.

Like fire, it was known as a god, and even today civilized man holds high respect for that force which has changed man's entire existence and made the world a magical planet.

The creation of this power has been of no little importance in the history and development of Appleton for it was in this city that one of the first power plants for electricity was established on Sept. 30, 1882.

Since that time that little plant has developed into one of the most powerful and widely known utilities in the country. The men associated in this field of industry were never slow to cast aside the old and take on the new, and as a result, the present new plant of the Wisconsin Michigan Power Co. furnishes power for cities, towns and villages within a large radius.

Even the most common method of manufacturing electricity by the hydro-generating process has been supplanted by the newer methods in which this power is created by steam turbines at the Wisconsin Michigan Power Co. plant.

Rebuild Plant

To effect this change, the company as early as 1915 started work on its present plant which was completed in 1925. This new unit includes one of the largest and most modern plants in which high-grade coal is reduced to a highly pulverized powder to generate steam for gigantic turbines and generators.

The process of grinding this coal into such a fine powder that it can be blown into the boiler furnaces, is in itself an elaborate one. Although the plant still has its units for generating electricity by water-power, the greater portion of power is generated by steam turbines.

Steam turbines are used as prime mover for generating electricity and the complete units are called turbine-generators. The use of these turbines have proven an ideal way of furnishing electricity to the public at a lower cost and with a guarantee of continuous and efficient service.

About 30 years ago two hydro units were built on the present site of the power plant. Each water wheel consisted of three double Smith Vaile wheels on one shaft directly connected to a 500 k. w. 600 volt d. c. generator and a 500 k. v. 4,000 volt a. c. generator. Only one of these units still is left. Shortly afterward two Corliss engines and four 335 h. p. Sterling boilers, hand fired at first, were installed to run these generators when the water was too low in the Fox river for water wheel operation, or in cases of anchor ice. There was no substation and the highest voltage out of the plant at that time was 4,000 on power circuits.

In 1915 excavating was started for the present power house. A turbine was put in service in March, 1917. A battery of boilers was then installed to supply steam for these turbines. In 1920 the plant's No. 10 turbine and Nos. 3, 4, 5 and 6 boilers were added. The No. 9 turbine was installed in 1924. In 1924 and 1926 the boiler room was rebuilt for powdered fuel and the pulverizing building added to prepare the fuel. This was done because of the low boiler efficiency of the old stokers, and to obtain better operating conditions.

Coal used to generate steam is shipped to the plant from Green Bay by boat, each barge having a capacity of 400 tons. The storage yard capacity on the west side of the plant is 30,000 tons. A huge gantry crane is employed to unload coal from the barge and to carry the fuel into the storage pit.

Magnetic Pulley

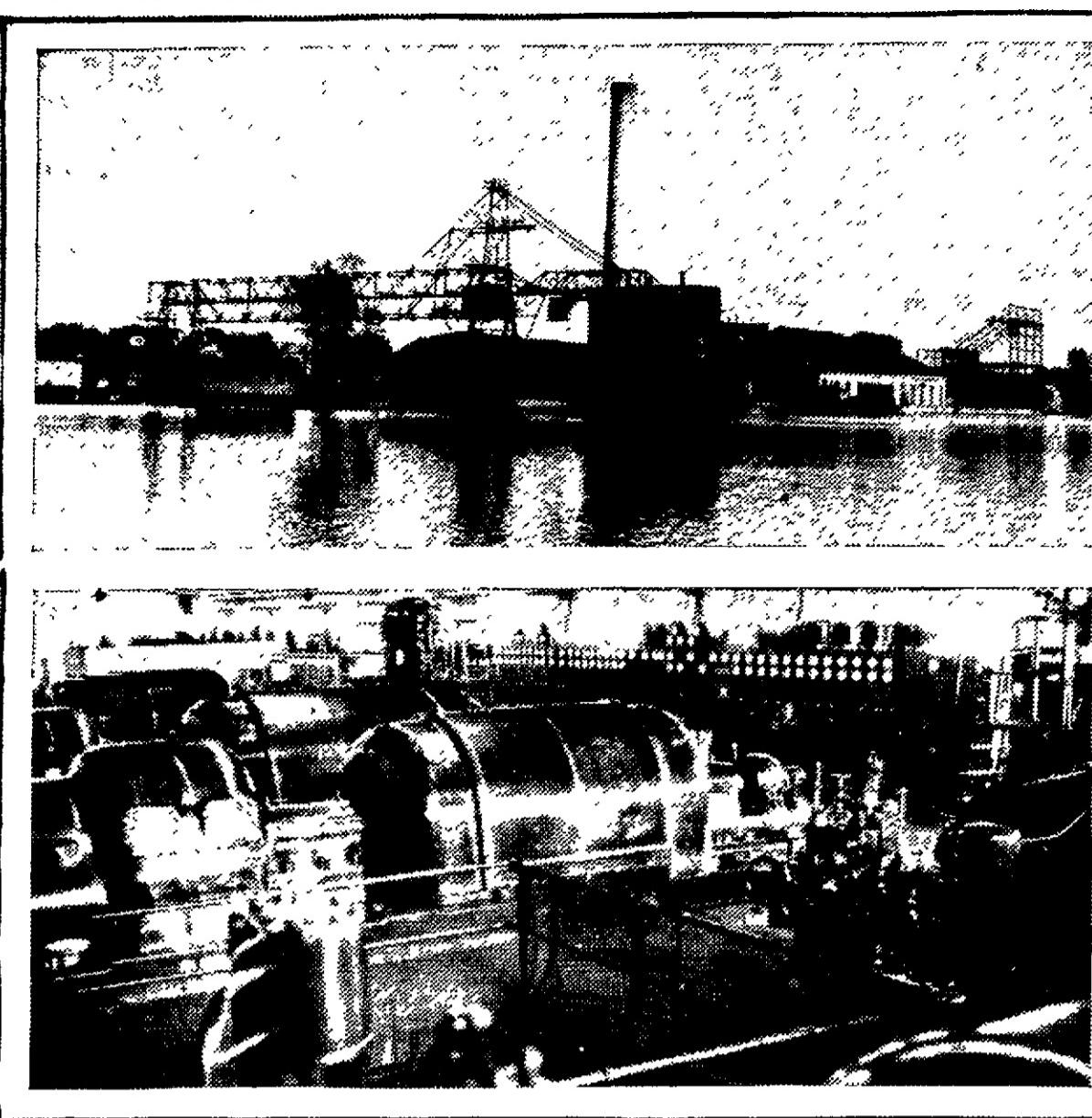
From this yard the coal is fed mechanically to a rubber belt, 610 feet long, which runs the entire length of the coal yard along the south wall—and travels to the magnetic pulley. This pulley is energized electrically 115-120 volts and serves to remove tramp iron, nuts, bolts and other pieces of metal which come in the cars or barges in varying shapes and quantities—and which would partly wreck the crusher and mills if they were passed into it. This iron is forced off the underside of the belt as it starts its return trip to the west end of the yard.

The coal and non-metallic foreign material such as wood continue on their way, dropping off the long belt into a spout leading to a shorter belt. This short belt carries the coal over the scales and then to the crusher. Between the scales and the crusher a man is stationed to pick out the sticks of wood and other material which is carried along with the coal.

From the end of the short belt the coal passes over a bar screen into the crusher where it is broken up into small pieces the largest of which are about three quarters of an inch in diameter. The coal passing through the screen bypasses the crusher through a spout leading into the boot of the elevator. After the coal leaves the crusher it goes up the elevator through a spout into a 16-inch raw coal conveyor to the green coal bunkers for storage.

The coal then drops down to the steam drivers which operate on the same principle as the ordinary steam radiator. Live steam heats the driver grids through which the coal passes on its way down to the mills. It is important that the coal be dried to not over three and one-half per cent moisture before going into the pulverizing mills. If

LAST WORD IN MODERN POWER PLANTS



Modern in every respect, the Appleton plants of the Wisconsin Michigan Power Co. are a mighty factor in generating the electric current used in Wisconsin and northern Michigan. The upper picture shows the exterior of the plant, with its equipment for generating power either by water or by steam, and the lower picture is of the plant's interior.

Modern Pioneers Find New Frontier

Overcome Huge Difficulties in Pushing Lines Into New Fields

(Continued from Page 31)

gering their own huts, equipment and lives.

Hundreds of factors are taken into consideration as their engineering work progresses over periods of years. On these field surveys the engineers study streams, waterfalls, valleys, and the possibilities of building dams.

They determine the flow of the river, computing the amounts of water which flow over natural falls, and learn the times of the year when the most water comes down the streams. One of the largest projects of this type is now underway on the Sturgeon river in Baraga and Houghton counties in northern Michigan. This stream is in the Lake Superior watershed region and the site is owned by the power company. This stream can be developed to attain a head of 400 feet, according to engineers.

The engineers are accompanied by gauge readers who take daily readings on the watershed. They also determine the amount of rainfall and other natural conditions. All of these records are sent to the power company office in this city where they are assembled and studied for long periods.

After this preliminary work has been completed, the next step is the estimation of cost, in fact, all the economics involved in the entire layout. If the project seems favorable, the work is gradually developed.

In addition to carrying hydro-elec-

tric energy into desolate regions, sub-stations must be erected. In these stations transformers increase the voltage of the electricity for sending power over long distances.

Part of the difficult task of the engineers is to lay out the best routes over which materials for construction work can be hauled with the least amount of difficulty. Months are sometimes required to determine the most suitable routes, because of the many hazards.

Among the hazards which confront this pioneering work are the rivers, lakes, swamps, sharp mountains and hills, valleys, prominent points exposed to lightning, wind, trees and forest fires.

Working with pictures of these natural hazards drawn by the engineer the linemen start their work of erecting poles and transmission lines over the desolate regions. From the advance survey, the line is designed, structural materials ordered and rights of way purchased by the company.

Set Poles In Muck

Setting poles in swamps is one of the most difficult tasks which confronts the linemen. They are obliged to sink pipes into the mire and set dynamite blasting to make way for the poles. Cribs are then built around the pole, which later are filled with rocks.

In the construction of dams many factors must be taken into consideration. The rocky banks at either side of the natural waterfall must be studied, and the supply of water must be determined.

In the erection of arch dams the ends of the structure are keyed into the rocky banks. As the force of water hits the dam it tends to spread the structure, but this natural function only tends to strengthen the dam, because the ends are forced against the rocky banks.

Light and Power go hand in hand with IRON and STEEL

In the modern city, as in the modern buildings, you will find the latest improvements in electrical energy, as well as the latest in steel construction.

In our factory are produced structural steel, smoke stacks, steel tanks. Sheet iron work, general boiler repairs and incidental steel work such as the construction of large electric signs. For example, the "Service First" sign for the Wisconsin Michigan Power Company, similar signs for the Power Company's northern plants and the King Midas Sign in Oshkosh.

The men in charge are E. J. Femal, J. Heckel, A. W. Van Ryzin and Giles Courtney. Individually and as members of the Fox River Boiler Works, we extend our congratulations to the WISCONSIN MICHIGAN POWER COMPANY upon the completion of over fifty years of SERVICE TO THE COMMUNITY.

Fox River Boiler Works

701 S. Bounds St.

APPLETON

Phone 4216

Medicine Leans Heavily on Aid From Electricity

Electrical Development Also Owes Much to Brilliant Physicians

In the modern practice of medicine the ingenious employment of electricity is well nigh indispensable for recognizing and treating many disease conditions. On the other hand, electricity in its development is also indebted to the power of observation and the experimental trend of mind of many brilliant physicians.

A book of Dr. William Gilbert, physician to Queen Elizabeth and president of the College of Physicians, "Of the Magnet, Magnetic Bodies and of the Great Magnet the Earth, the New Physiology, Set Forth by Many Arguments and Experiments," published in 1600, is generally quoted as the foundation of terrestrial magnetism and electrical science. Gilbert discovered that glass, sulphur, resin and many other substances possessed the same property as amber, they attracted light objects when rubbed. Dr. Gilbert who coined the name "electricity" (electicitas) from the Greek word "electron" for amber.

Dr. Aloisius Galvani, professor of anatomy at the University of Bologna, observed first in 1780, the twitching of muscles under the influence of electricity.

According to the more popular form of story told by Walsh, Galvani was engaged in preparing some frog's legs as a special dietary for his wife, who was ill and who liked this delicacy very much. He thought so much of her that he was doing the work himself; in the course of the preparation he exposed the large nerve of the animal's hind legs and at the same time split the skin covering the muscles. In doing this he touched the nerve muscle preparation, as this has come to be called, with the scalpel and little forceps simultaneously, with the result that twitches of the legs occurred. Seeking the cause of these the idea of animal electricity came to him.

Galvani then proved that atmospheric electricity as manifested in lightning would produce the same effects on muscular movements. He dared to place an atmospheric conductor to the highest point of his house and from this he ran down a wire to his laboratory and attached it to a frog leg preparation and behold, whenever lightning flashed from the clouds, the limbs of the animals underwent violent contractions.

He thus corroborated some of our own Benjamin Franklin's observations on lightning.

Next, another Italian, Alessandro Volta, Professor of Natural Philosophy, proved that electricity was not inherent in the animal, but due to discharge between two dissimilar metals when they are placed in contact. In the spring of 1800, he made a pile of metal discs of zinc and copper, placing moist cloth, in heat. Such treatment relieves pain

stead of frogs' legs, between them; from here was an easy step of placing the two metals in a vessel filled with acidulated water. This was the invention of the electric cell or battery, which made in turn possible the epochmaking work of Davy, Oersted and last, that of Faraday.

Development of Electrotherapy

The discovery of the Leyden jar in 1745 enabled the production of a powerful charge of electricity by friction and the shocks from this jar inspired terror in Germany and France. The famous Abbe Nollet administered in the presence of the King of France a shock simultaneously to 180 of the royal guards, and later, at one occasion, lined up the whole community of the Grand Convent of Carthusians on their grounds, forming a row of 1800 yards, a shock from a powerful Leyden jar caused a simultaneous jump of all. With the construction of the first glass friction machine and some experiments on animals by Abbe Nollet, the time was ripe for the first application of electricity for the cure of human ailments.

A German physician, Dr. Gottlieb Kratzenstein, is the first one record to have done so. He is the author of the first book on electrotherapy, published in 1745.

His method of treatment consisted of seating the patient on a wooden stool, electrifying him by means of a large revolving friction glass globe and then drawing sparks from him; afterwards the patients were tired and sleepy as though they had performed considerable work.

Dr. Gilbert who coined the name "electricity" (electicitas) from the Greek word "electron" for amber.

Orsini, professor of anatomy at the University of Bologna, observed first in 1780, the twitching of muscles under the influence of electricity.

According to the more popular form of story told by Walsh, Galvani was engaged in preparing some frog's legs as a special dietary for his wife, who was ill and who liked this delicacy very much. He thought so much of her that he was doing the work himself; in the course of the preparation he exposed the large nerve of the animal's hind legs and at the same time split the skin covering the muscles. In doing this he touched the nerve muscle preparation, as this has come to be called, with the scalpel and little forceps simultaneously, with the result that twitches of the legs occurred. Seeking the cause of these the idea of animal electricity came to him.

Galvani then proved that atmospheric electricity as manifested in lightning would produce the same effects on muscular movements. He dared to place an atmospheric conductor to the highest point of his house and from this he ran down a wire to his laboratory and attached it to a frog leg preparation and behold, whenever lightning flashed from the clouds, the limbs of the animals underwent violent contractions.

He thus corroborated some of our own Benjamin Franklin's observations on lightning.

Next, another Italian, Alessandro Volta, Professor of Natural Philosophy, proved that electricity was not inherent in the animal, but due to discharge between two dissimilar metals when they are placed in contact. In the spring of 1800, he made a pile of metal discs of zinc and copper, placing moist cloth, in heat. Such treatment relieves pain

and strengthens the body.

Due to newer type, safe and efficient apparatus and a better understanding of the action of the various electrical currents, electricity nowadays has achieved a permanent and important place in the treatment of many diseases and injuries. Far from causing burning or pain, skillfully applied treatments are pleasant and always under full control.

For heating the surface or the deeper parts of the body, current of very high frequency (oscillations of a million or more a second) are employed, and the method of treatment is known as diathermy. Two metal plates are placed on opposite surfaces of the body, and the rapidly oscillating current, if properly applied, causes neither prickling nor shock, only a pleasant "velvety" heat. Such treatment relieves pain

and strengthens the body.

For the absorption of inflammatory swellings in joints or internal organs and also weakens or destroys infectious germs. In certain forms of chronic arthritis, bursitis, neuritis, in the after treatment of injuries to bones and joints, in chronic catarrhal conditions of abdominal and pelvic organs, this

Wisconsin Leads In Hydro Power

Great Strides Have Been Made in 50 Years in Use of Water

Modern hydro-electric plants throughout the state stand as present day proof of the progress Wisconsin has made in the past 50 years in water power, since the memorable day in 1882 when the first hydro-electric plant in the state was opened at Appleton.

Today more than 6,000 horsepower in the field of hydro-electric development is furnished by a Wisconsin plant, the Allis-Chalmers Co., known throughout the world for its hydraulic machinery. Of this amount, 300,000 horsepower are generated in the state, about 75 per cent of the total water power developed here. This embraces two of the largest hydro-electric plants in Wisconsin, Wissota plant of Northern States Power Co. and the Prairie du Sac plant of the Wisconsin Power and Light Co.

The Wisconsin Michigan Power Company's hydraulic plant, although not large, holds its place among power companies in the state for its particular engineering problems, and the progressive hydraulic engineering accomplished in the new Weyauwega plant built to solve transmission line problems in connection with overall electric power transmission.

Water power itself in its crudest development is not recent knowledge, it has been known for centuries. However it has been with in the past century that the principle of the water turbine has been recognized, making water power developments possible.

Up to the time that electricity

helps the absorption of inflammatory swellings in joints or internal organs and also weakens or destroys infectious germs. In certain forms of chronic arthritis, bursitis, neuritis, in the after treatment of injuries to bones and joints, in chronic catarrhal conditions of abdominal and pelvic organs, this

was applied to water power, only small turbine units were used in early plants. With the application of electricity the field of water power became vast and limitless. Step by step the progress in design and construction of electrical equipment was followed by a corresponding development of the water turbine. Generating equipment of larger capacity required turbines of increasing power and demanded greater efficiency and reliability.

From this point Wisconsin power companies have grown, developing their plants according to their specific problems.

(Turn to Page 42, Col. 7)

Power Company Proud Of Its Veteran Workers

(Continued from Page 34)

employed in the load and ground testing department at the power plant.

William Van Rye began working for the utility on April 19, 1909 as motorman. When the car lines were abandoned and bus service inaugurated he became bus driver, a position which he still holds.

Herman Eggert started with the company on May 28, 1909, as a street car conductor, and remained in that position until abandonment of the street cars when he went to driving a bus.

Entering the employe of the company on Nov. 19, 1911, Frank Bayer also became a motorman on the interurban car line between Neenah and Kaukauna, a position he held until the line was abandoned. Since that time he has been night watchman.

Joseph Probst entered the service in 1911 as garage repairman. Serving in that capacity at the car barns for many years, he later became garage foreman.

On Sept. 15, 1911, Herman Reinke became a lineman for the company. He was active in that capacity for many years and later was promoted to line foreman.

John B. Stark, Sr., started with the firm on June 19, 1911 as a blacksmith, and he still is employed in that capacity at the power plant.

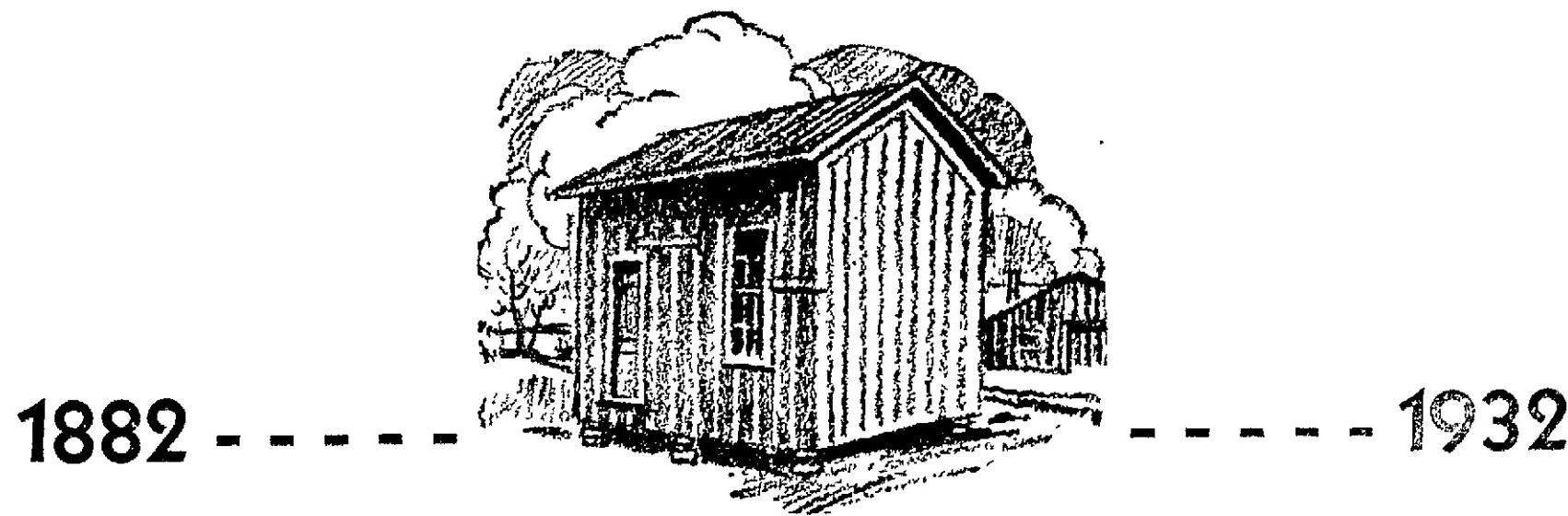
Charles Roller, started as a stoker for the company at the power plant. He entered the employe of the firm on Aug. 11, 1911.

was applied to water power, only small turbine units were used in early plants. With the application of electricity the field of water power became vast and limitless. Step by step the progress in design and construction of electrical equipment was followed by a corresponding development of the water turbine. Generating equipment of larger capacity required turbines of increasing power and demanded greater efficiency and reliability.

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(Turn to Page

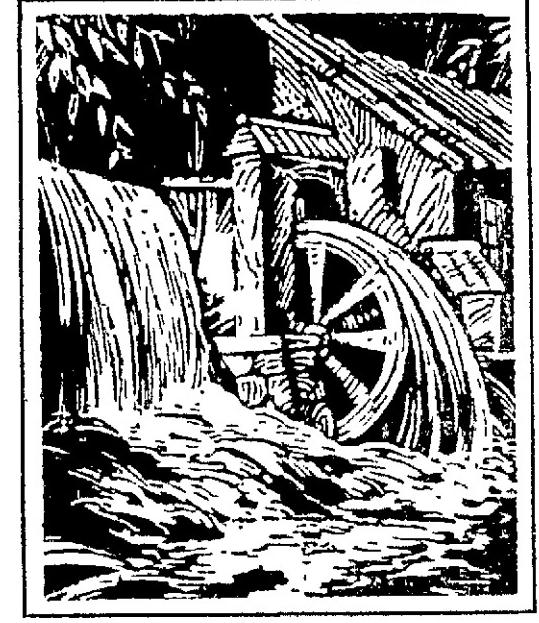
**The People of the Fox River Valley
and Northeastern Wisconsin
served by the
Wisconsin Public Service Corporation
Congratulate
the City of Appleton and the
Wisconsin Michigan Power Company
on their Half-Century of
Pioneering Progress in Public Service**



 Being **first** in anything is an achievement that doesn't take a back seat even for the almost proverbial mouse trap maker who had the ground in front of his door worn to bedrock by a host of followers. Being **first** with such an epoch making achievement as Appleton is now celebrating is an event of extra importance. The date of the **first** hydro electric station in the world will go on into history, never to be forgotten by this world of men. Appleton has reason to be proud of the pioneers that so courageously established this tiny experiment of a plant.

tinued progress from the people and institutions served by it. The development of hydro electric generating stations has been carried to the completest possible extent by this company, and the benefits of this form of power have been preserved and utilized for the largest possible number of people. The development of power sites on the Peshtigo and Menominee Rivers in the northern part of the state has transformed great areas of cut over timber land and impenetrable swamps and rocky river beds into efficiently operated sources of water power and a paradise for hunters, fishers and vacationists.

The present use of water power in the public interest by this and other companies in Wisconsin is closely linked with the opening of the **first** hydro electric plant in your city. We congratulate you on your real contribution to the progress of the nation and the world.



Only a few spots in the United States and Canada look to water power as a major source of electricity. Niagara with its great falls and large amount of water, and three or four of the larger rivers, are these exceptions. The total H.P. available all the time from all developed and undeveloped water power sites in the state (about 800) is only a little more than a third of the power available at one of the three Niagara plants.

WISCONSIN PUBLIC SERVICE CORPORATION

Serving Green Bay, Oshkosh,
DePere, Oconto, Menominee, Marinette, Sheboygan and over 125



other cities and villages in the Fox River Valley and Northeastern Wisconsin with gas and electric service.

Most communities have found that with present public demand water power service is inadequate as a 24 hour, day by day source of power. Utility companies have been forced to supply steam generated power capacity to meet all the needs of the public so that water power, once looked upon as the solution to all power problems, has become a mere "extra" source of power, used when available but not dependable. Despite its very efficient hydro power, the Wisconsin Public Service Corporation was forced to build a great steam plant at Green Bay several years ago.

City Served by Long List of Power Plants

History of Electricity Here Goes Back to Infancy Of Industry

Forerunners of the Wisconsin Michigan Power Co., which pioneered the various methods of manufacturing electricity and power are many, and served as the foundation of the present Power Co. Even the romance of the first electric street car in the world which made its initial run in Appleton in 1886; the history of the first electric light plant which began operations in 1882, and the first gas plant erected here in 1877 are closely linked, forming the first foundation of the power company.

The Wisconsin Michigan Power Co. which formerly was the Peninsular Power Co. received its name on May 7, 1927, and shortly afterward, on June 27 of the same year, merged the Wisconsin, Traction, Light, Heat and Power Co., successors of all former electric, gas and street railway and bus companies operated as public utilities in Appleton and nearby communities.

Appleton Edison Light Co. was organized late in 1882 and began operations the same year. About four years later the Appleton Electric Street Railway Co. was operating its line between Riverside cemetery and Appleton Junction. The Appleton Edison Electric Co. was successor to the Appleton Edison Light Co. and about the same time the Citizens Electric Light and Power Co. came into being, and the Neenah-Menasha Electric Railway Co. began operations.

The Appleton Gas Light and Fuel Co. was organized on Oct. 20, 1894. On Jan. 29, 1896 the Appleton Electric Light and Power Co. was organized and began operating the plants of the former Appleton Edison Electric Co. and the Citizens Electric Light and Power Co. on Feb. 1, 1896.

The Fox River Valley Electric Railway Co. was organized on July 21, 1897, taking over the Neenah-Menasha Electric Railway Co. as a subsidiary. The company started operations on Feb. 4, 1898.

Appleton Gas Light and Fuel Co. organized in 1897, and the Neenah-Menasha Gas and Electric Co. on March 30, 1901 became the property of the newly organized Fox River Valley Gas and Electric Co. This company started operations on April 1, 1901.

The Seymour Electric Co. organized on May 17, 1917 later became the property of the Wisconsin Traction, Light, Heat and Power Co., which began operations on Jan. 1, 1902. The Inter-City Bus Co. was organized as a subsidiary of the Tractor Co. in January, 1924.

On June 24, 1927, the Wisconsin Michigan Power Co. acquired the properties and franchises of the following firms: Iron Mountain Electric Light and Power Co., Alpha Lighting Co., Amasa Lighting Co., Dickinson County Public Services Co., Loretto Light and Power Co. and the Powers Spalding Light Co., all Michigan corporations. On June 4 of that year the company acquired all of the assets and property of the Utility Realty Co.

On May 31, 1927 the company merged the following Wisconsin corporations: Niagara Light and Power Co., Weyauwega Electric Light Co., Aurora Electric Light and Power Co., Star Electric Light, Heat and Power Co., and the Badger Utility Co.

Assets of the Walla Walla Electric Co., a small rural distribution system near Weyauwega, were acquired by the Wisconsin Michigan Power Co. on Aug. 9, 1927. On June 29, 1930 the Inter-City Bus Co., a subsidiary operating a bus line from Neenah to Green Bay was dissolved. This operation was taken over by the Wisconsin Light and Power Co. of Madison.

The Powers-Spalding Light Co., successor to the Powers-Spalding Light and Power Co. of three counties in Michigan became the property of the Wisconsin Michigan Power Co. on June 6, 1927. The founder of this firm was William H. Needham and the capital stock investment aggregated \$100,000. The company served patrons in Dickinson, Menominee and Delta counties in Michigan before it was taken over by the new Powers-Spalding Light Co. on July 13, 1925.

The White Lake Electric Co. was taken over by the Wisconsin Michigan Power Co. on Dec. 1, 1927. This



SWITCHBOARD OF FORTY YEARS AGO

When the first electric plants were opened there were no switchboards of any kind, but after a few years it was found necessary to install some kind of board and the one pictured above was set up in the central station here. It was a crude affair measured by any standard, but particularly so when compared with the mighty boards in modern plants.

Scotchman Made Electric Light as Early as 1835

Forty-three years before Thomas Edison "invented" the electric light, a modest Scotchman, James Bowman Lindsay, of Dundee lighted his room with electricity. Humbly he lived and almost alone, but he left his writings and in the newspapers of the day accounts appeared describing his remarkable discoveries—the electric light, for instance, in 1835.

In 1845 he wrote of electric welding, subsequently invented in 1881. In 1831 he figured out wireless signals which he subsequently sent across the Firth of Tay, and he talked of sending wireless messages across the Atlantic half a century before Lodge and Marconi began their great work.

In 1925 Senator Marconi said of him, "In any case the name of James Bowman Lindsay must go down to posterity as that of the first man who thoroughly believed in the possibility and utility of long distance wireless telegraphy. He worked patiently at the problem, and first found a solution which came near practical realization than many were inclined to admit."

"A Wee Bit Daft"

Lindsay was born Sept. 8, 1799, at Windyedge, a little stone hut at Carnylie, near Dundee, and had it not been for his delicate health he would have followed his father's footsteps as a farmer. He became a hand loom weaver, but was very studious and at 22 went to St. Andrew's university, where he earned his way and started his teachers with his mathematical and scientific ability.

Giving up his early ambition to enter the ministry, Lindsay converted a barn at Dilthymoss, Carnylie, into a school and taught the poor children of the neighborhood. Then he moved to Dundee, where he spent the rest of his lonely life in study, teaching and invention. He was regarded as a crank and a "wee bit daft," but the main accomplishments of his life were recorded in the local paper, the Dundee Advertiser, which still flourishes, and in whose files

one may find valuable accounts of the strange pioneer's doings.

Advertised His Studies

The Dundee public library has some of his works and the traveler may still buy his miscellaneous pamphlets, yellowed with years, at the book shops along Reform, Lindsay or Commercial-sts. Or, if one goes to the trouble, he may find old men in Dundee who studied as boys in James B. Lindsay's classes. Indeed, the father of Walter S. Lindsay of Lindsay-McMillan Co., Milwaukee, once studied languages from the wise old man of Dundee. The coincidence in the names is not startling, because Lindsay in Scotland is as common as Smith in America.

In the Dundee Advertiser of April 11, 1834, Lindsay inserted the following ad: "J. B. Lindsay resumes classes for cultivating the intellectual and historical portions of knowledge and instruction on April 1834, in S. Tay-st, Dundee. In a few weeks hence a course of lectures will be formed on frictional, galvanic and voltaic electricity, magnetism and electro-magnetism.

The battery, already powerful, is undergoing daily augmentation. The light obtained from it is intensely bright and the number of lights may be increased without limit.

Prophecy Electrical Age

"A great number of wheels may be turned (by electricity) and small weights raised over pulleys. Houses and towns will in a short time be lighted by electricity instead of gas and heated by it instead of coal, and machinery will be worked by it instead of steam—all at a trifling expense. A miniature view of all these effects will be exhibited, besides a number of subordinate experiments, including the discoveries of Sir Humphrey Davy."

And that was in 1834. Lindsay's fame reached the attention of a handful of eminent Britshers including the earl of Derby, when he was prime minister, and, in July, 1858, Lindsay was granted a pension of £100.

Hard work undermined Lindsay's weak constitution and he died Sunday morning, June 29, 1862.

He is buried today in Western cemetery and in 1901 a granite obelisk was erected by citizens, paid for by public subscription. The growth of the radio has focused attention on the quiet old scientist's life and Dundee people have marked

Many Changes in Light Thru Ages

Man Has Come Long Ways Since He Used Torch For Illumination

So accustomed have Americans become to electric lighting that they hardly think of any other kind. Yet lighting engineers point out that there is much room for improvement in the quality of electric lighting. For the presence of a dim bulb in a room does mean that the occupants are receiving the light they need.

Poor lighting may cause poor eyesight in later life and eye troubles may cause nerve irritations inducing other disorders. Man has come a long way since the stone age days when a brand or smoky torch was the means of lighting.

Then Oil Came In

About 6,000 years ago man advanced to the point where he began to use oils to burn in pottery or metal lamps—such as we find in museums today in the exhibits of Babylonian, Egyptian, Grecian and Roman civilizations. By the first century A. D. candles came into use and then about 16 centuries rolled by before the whale oil lamp began to be used.

Candles followed closely on the heels of whale oil and then, in a few decades, kerosene marked another tremendous advance. Experimenters meanwhile worked on the problem of getting sustained light from electricity. Finally Edison made this practical in 1879 and since then the art of modern lighting has been perfected. Hardly perfected—for each year sees more refinements in electric lighting.

And Now Even Tennis

Streets, playgrounds, even athletic fields for tennis and football are now flooded with light so that man may have his play hours after dark if the pressure of modern life crowds out relaxation during the sunlight hours.

In the home the modern housewife is learning more and more how to light the rooms for beauty and for the best scientific conditions for reading.

It is a far cry from the skin clad stone age man with his pitchy torch, a pitiful glimmer in the darkness of awful night.

ed his house with a bronze plate, and every loyal urchin of Dundee or Leithers along the jute wharves, where the ships come in from India, knows the story of James Bowman Lindsay.

Which To Work On First?

When Oersted, in 1820, discovered the detection of an electric needle under the influence of a current, Lindsay, then 21 years old, was working on the same problem. To quote from a scrap of manuscript in the Dundee library, "Previous to the discovery of Oersted,

(Turn to Page 40, Col. 8)

Big Territory Served From Modern Station

(Continued from Page 36)

ergy by rotating the spindle through the medium of pressure and heat on the blades, both stationary and rotating. As in the hydro unit, this mechanical motion of rotation is converted into electrical energy by means of a generator on the same shaft.

The steam passes through the turbine after giving up its energy of pressure, velocity, and heat, and passes into the condenser where it is cooled or condensed from steam into water. It is then returned to the surge tank or heaters where it mixes with any make-up water as may be necessary to assure equal quantities. From this point it begins its travels through another similar cycle.

There are four Allis-Chalmers turbines in the plant each having a 5,000 k. w. generator capacity at 80 per cent power factor. They travel at the rate of 3,600 revolutions per minute and use about 14 pounds of steam per k. w. They are 37 feet long, 10 feet wide and eight feet high. Each unit weighs 184,000 pounds.

In addition the plant has two vertical water wheels and one old horizontal type wheel.

In the turbine room is a master panel on which the remote control switches and other equipment for controlling the huge network of power circuits is mounted.

Both local and suburban circuits are handled by more than 50 different switches and meters. These meters are read every half hour to assure the correct flow of electricity and the amount being utilized by consumers.

Above this board is a master con-

trol clock which regulates the frequency of the turbines. This part of the plant also has a radio-phone for load dispatching purposes to various points of service.

Each turbine generates 4,400 volts, the electricity passing into the large substation at the east side of the plant. It is in the substation that the current is stepped up to a maximum of 33,000 volts by huge transformers. This current is dispatched directly to mills in Appleton, and to Kaukauna, Seymour, Hortonville and Neenah.

Because the load is sufficient, two circuits are operated to Neenah. These circuits also are connected with a 33,000 volt sub-station in the southern limits of Appleton. At this station transformers are capable of stepping the current up to a maximum of 132,000 volts.

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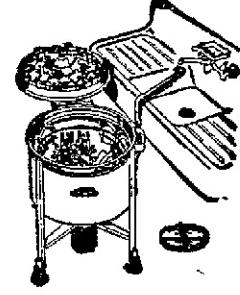
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WATER POWER

TURNS THE GENERATOR

THAT MAKES *electricity*

WHICH WASHES



CONOVER *Electric* DISHWASHER

If you still wash dishes by hand, by all means write for the new Conover booklet, "Never Again."

The Conover Co., 140 S. Dearborn St., Chicago

Westinghouse

Salutes the Spirit of Electrical Progress

From a small, crudely constructed — compared to modern equipment — hydro-electric plant, built largely in the interests of experiment in the City of Appleton has come much of the spirit of electrical progress.

It was this pioneer hydro-electric plant which played so important a part in man's development and employment of the magic of electricity. Tomorrow, the fiftieth anniversary of that pioneer is being celebrated.

To the spirit of electrical progress which was born here, Westinghouse offers its salute. To the Wisconsin Michigan Power Company, direct lineal descendant of this first plant, our congratulations!

Westinghouse

Electric and Manufacturing Co.

Congratulations
from the
**Fox River
Navigation Co.**
Coal Boating

Electrical Engineers
Equipment Co.
MELROSE PARK, ILLINOIS
Sales Offices in all principal cities

It pays to use The Three E's



DO YOU KNOW that all of the electricity you use passes through switches and fuses of our manufacture?

Your original Hydro station was the first of its kind and we also are the originators and manufacturers of numerous lines of high tension equipment and have kept pace with development requirements.

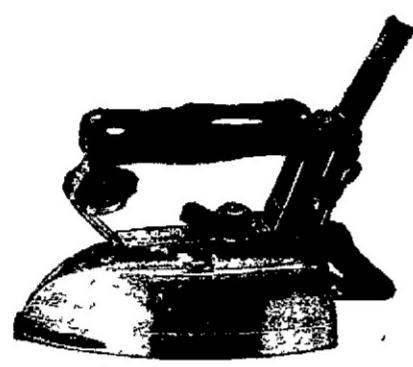
1882

1932

Any Person Who Does the Work That Can be Done by a Small Electric Motor is Working For A Few Cents A Day



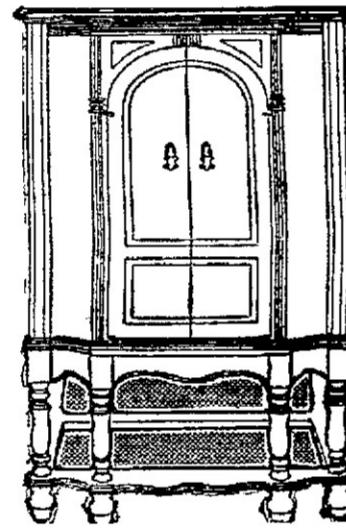
Edison and G-E MAZDA lamps are the refined, efficient descendants of Edison's original lamp. From them, you receive the most light for your money.



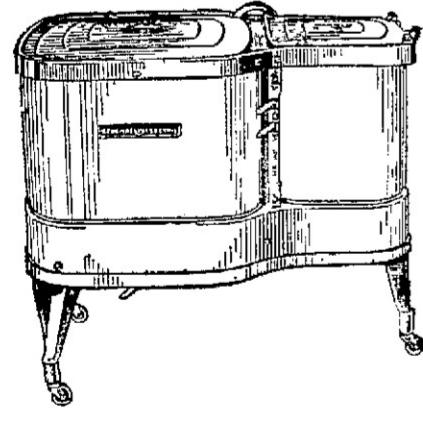
The modern, convenient electric iron is part of a family of General Electric home laundry equipment that eliminates the drudgery of washday.



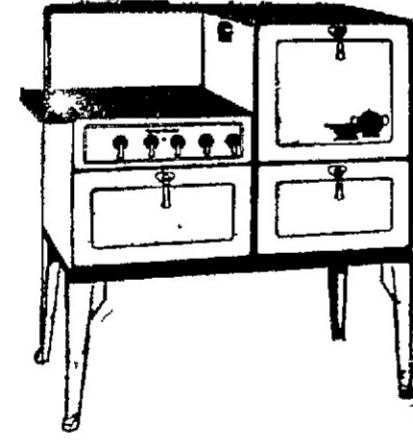
For the modern housewife, the G-E vacuum cleaner makes short, clean work of a job once done in a cloud of dust from the flailing broom.



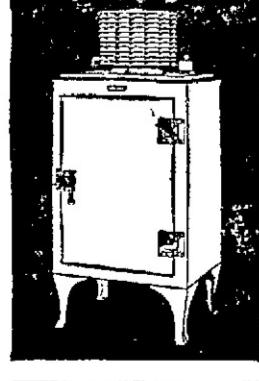
Tone test after tone test from coast to coast have proved the superiority of the G-E Radio. Hear it — believe your own ears.



Another member of the family of G-E home laundry equipment, the washing machine, makes washing almost a pleasure.



Calrod, General Electric's new heating coil on the Hotpoint range adds speed and economy to the already startling advantages of electric cookery.



Down payments as low as \$10
(24 months to pay)

The G-E refrigerator with the sealed-in-steel Monitor Top, a product of 18 years of research and manufacturing experience, as an outstanding contribution to safe, carefree, refrigeration—the guardian of health in foods.

BEFORE 1882, low cost labor, both at home and in industry, was accepted as inevitable. After that date, a change began to loom in the distance.

In that memorable year, the opening of the world's first hydroelectric plant, in Appleton, marked an era of unprecedented development . . . development in the efficiency of industry and transportation, and in convenience and comfort for the home.

The original plant, with its mere handful of customers, was the forerunner of a vast supply of electric power that serves the Appleton region. The first generator, built in Thomas A. Edison's machine works, was the forerunner of the modern generators and turbines that are now manufactured in America's largest electrical workshop — The General Electric Company.

As the electrical art progressed, the public utilities of Wisconsin kept pace with the new knowledge and brought to the people on their lines increasingly better service at continually lower prices. During the same time, General Electric, through its research and engineering activities, developed methods of building equipment with which to manufacture and distribute electricity more economically — to make it useful for a thousand and one tasks of our daily lives, from the operation of gigantic industrial machines, providing fast transportation, and illuminating the world, to sharing the burdens of the home. With the development of these electrical servants came the unquestionable truth: "Any person who does the work that can be done by a small electrical device is working for a few cents a day".



General Electric

Electrical POWER

**transmitted and dis-
tributed through Line
Material Company's
electrical equipment**

Essential to the successful use of electricity for light, heat and power is its transmission and distribution. For this purpose, the Line Material Company was organized in 1911. Through our facilities, such equipment as pole line hardware (insulator pins, brackets, braces), switches, fuses, potheads, lightning arresters, street lighting equipment, conduit, transformers, etc. are manufactured. This equipment forms the backbone through which electricity is supplied to home, business and industry alike.

So outstanding, are L-M products that practically every large electric light and power company in the United States is listed among our customers. Hand in hand with the developments and improvements in the electrical service of today have come the developments and improvements in L-M equipment. Constant experiments, constant testing, constant striving to better what we have already produced, all go toward placing L-M service constantly in demand.

No matter where you may go you will find L-M products in use — in every section of the country — by firms dedicated to the public service.

To the Wisconsin Michigan Power Company our sincerest congratulations upon the occasion of the fiftieth anniversary of the first hydro-electric plant in the world. The background furnished by the electrical development since 1882 is the same background which has helped to build our business.

Line Material Company

South Milwaukee, Wis.

Factory Branches and Warehouses in

Albany, N. Y.
Atlanta, Ga.
Boston, Mass.
Birmingham, Ala.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio

Dallas, Texas
Denver, Colo.
Des Moines, Iowa
E. Stroudsburg, Pa.
Houston, Texas
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.

New York City, N. Y.
Oakland, Calif.
Oklahoma City, Okla.
Phoenix, Ariz.
Portland, Ore.
Richmond, Va.
Seattle, Wash.
Tampa, Fla.



Thousands of Dollars Lost In Big Storm

Appleton Isolated When Ice Breaks Down Power and Phone Lines

The sleet storm on Washington's birthday, 1932, the most destructive in the history of the city, cost the Wisconsin Michigan Power company, then the Wisconsin Traction, Light, Heat and Power company, over \$80,000 and kept trouble men and linemen hopping for weeks.

Street car and interurban service, for the first time in the history of the company, was discontinued, and electric light service throughout the district was crippled. About 800 places in the city were without electric service, and the outlying districts were thrown into complete darkness.

A large crew of trouble men patrolled the rural district during the night, and early Thursday morning a crew started out with a large snow plow and tons of rock salt to dig out the car tracks. First efforts were concentrated on restoring illumination to the industrial plants, and after that lines running into residences were repaired. For a time homeowners were asked to keep their porch lights turned on, for street illumination, as the street lights were the last to be put in operation.

Everyone was warned to refrain from touching fallen wires, and all complaints about fallen wires were handled as quickly as possible. Despite all precautions, however, two horses were instantly killed when a power line broke suddenly and struck the horses. The drivers of the horses was uninjured.

Burn Out Motors

Double trolleys with sheet cutters were used to keep the trolley lines free from ice, but eventually the tracks became so imbedded in the heavy snow that all street car service was shut down. Before service was discontinued several cars had burned out their motors through the incessant reversing of machinery in an attempt to make headway.

Appleton remained a hermit until Friday morning, when the valiant battles of traction, telephone and railroad company crews began to show results. Appleton and Neenah were connected by long distance telephone at 11 o'clock Friday morning, important plants were able to resume operations Friday, and train service on local lines was resumed, after a fashion, Saturday.

With the complete breakdown of all telegraphic wires out of Appleton, the Appleton Post-Crescent was unable to get its usual survey of world news for three days. However, it resorted to wireless telegraph, then in the experimental

stage, and filled the rest of the paper with as much local news as could be set on the spasmodically powerless typesetting machines. The news which came over the Lawrence college wireless outfit was copied and delivered by Robert Thompson, Henry Johnston and Elmer Erickson.

Train Wrecked

Two firemen and one engineer were injured Wednesday night when a Chicago and Northwestern southbound passenger train, running seven hours late, encountered an obstructed switch near Little Chute, hurling two engines from the rails. To buck the storm two engines had been attached to the trains and the number of cars reduced to the minimum. It was running 20 miles an hour when the accident occurred. Three other trains were wrecked in the vicinity, and another was snowed in near Greenville. Not even a switch engine could be moved after the

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No Motion Pictures Without Electricity

(Continued from Page 40)

are only now beginning to get results.

Noises are harder to produce than voices or music, and a child's voice is harder to produce than a woman's, which, in turn, does not so easily register as a man's. A symphony orchestra can now be reproduced perfectly, although it has taken years to reach this point, the cymbals and high flute notes being particularly hard to get.

According to Edward H. Kellogg, of the R. C. A. Photophone Company, sound reproduction in pictures has progressed during the last year or two in three different directions. First, through a process known as fidelity reproduction, or wide-range recording, which consists in reproducing very high overtones and low fundamental tones and giving naturalness to the voice; second, through accurate constancy in the speed of the film. A piano often sounds tinny on the screen because the film jumps in this process. Again through the reduction in the hiss of the background noises which are due to the film's lack of smoothness. Improvements are now being made in the manufacture of film material and in using greater care in its handling.

The problem at present is to get the best available equipment in use among exhibitors, which is difficult because it is expensive to install new apparatus. When the improvements from experimentation which has taken place during the last few months can be put to practical use in the theatres motion picture patrons will hear voice reproduction that is virtually perfect. Improvements in recent years have shifted the pictures from the spectacular to the dramatic in entertainment, and the latest strides toward perfection may open to them an entirely new field in the increased use of music.

Farmers Finding More Uses Daily For Electricity

Many a Back-Breaking Job Now Is Performed by Electric Current

Fifty years of progress in the electric light and power industry has witnessed a steady development in agriculture, the oldest industry known.

The invention and use of equipment and machinery designed to replace human labor have contributed materially to this advancement. Just as our manufacturing industries have been revolutionized through the introduction of mechanical power, and later through the substitution of electricity for the motor force, so has agriculture found electricity one of its greatest aids in its steady march onward.

If American agriculture is to be made a healthy, prosperous industry, the farmer must have available a standard of living equivalent to his city neighbor of equal training and responsibility. Electricity is just another, and an extremely important, one of the many agencies and forces which together are making it possible to realize this goal.

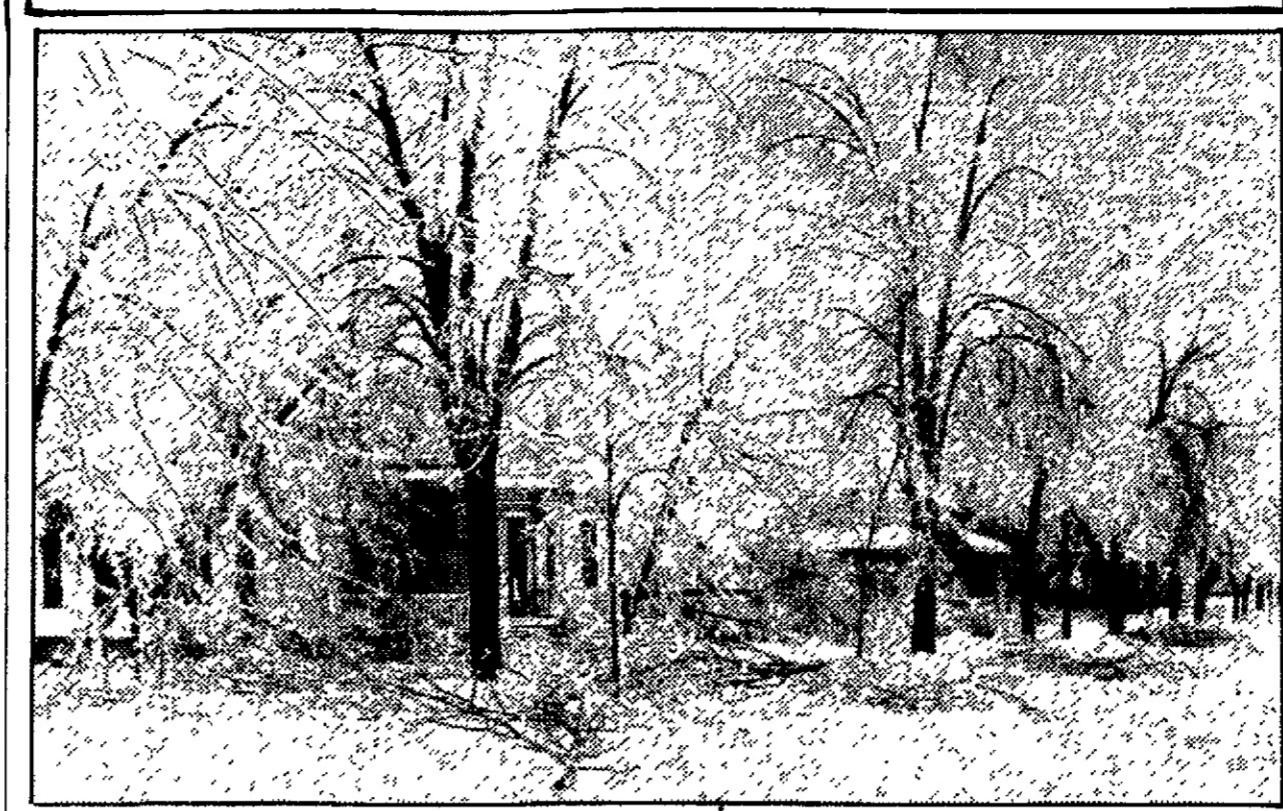
The task of electrifying the farms of America is far from complete, but marked progress has already been made. Today there are more than 700,000 farms using electric service from public utility lines, representing about 11 per cent of all the farms in the country. During 1931, a year of curtailed business activity, nearly 50,000 farms were electrified, a gain of nearly 8 per cent over the previous year.

A comparison with the year 1923, when there were approximately 180,000 farms obtaining service from the electric light and power companies, shows that in this eight-year period the number of electrified farms has increased three times.

When it is realized what electricity has accomplished for the manufacturing industry, it is reasonable to assume that it can perform a great service for the farmer. The total horsepower installed in the United States in power producing machinery is equal to four times that installed in either Great Britain or Germany and ten times that installed in France. It is very significant to note that the per capita wealth in Great Britain bears the same ratio to the per capita wealth in the United States as the total per capita horsepower here does to the per capita horsepower there. Our productive capacity, therefore, rests only upon the fact that our productive machinery is not only time saving in character but labor saving also.

In Bulletin 1,348 of the United States Department of Agriculture is strikingly shown a table which indicates the direct relationship between power used and the value of crops

STORM RAISES HAVOC WITH WIRE SYSTEMS



Loss of hundreds of thousands of dollars was caused public utilities by the devastating sleet storm which swept across Wisconsin on Feb. 22, 1932. The loss to the Wisconsin Traction, Light, Heat and Power Co., now the Wisconsin Michigan Power Co., alone was in excess of \$80,000 and its was months before all the damage caused by the heavy load of ice was repaired.

strides made in increasing illumination levels in the store and factory, so is there the opportunity for the farmer to make use of greater intensities of light in his farm buildings and yards. The advance made in lighting the streets of our cities has brought about a desire on the part of the farmer for adequate lighting of all highways in the vicinity of his property. Today there is mile after mile of highway lighting on roads passing through agricultural sections.

Irrigation each year is becoming more important to the agricultural industry, particularly in the Far West, where great areas of arid land have been made productive through the use of irrigation projects, the power for which is usually furnished by electric motors. The average farm using electric power for irrigation purposes in addition to other uses consumes about ten times as much electricity as the average farm which is not affected by irrigation. In the South, as well as in the West, the growers of citrus fruits are finding the installation of irrigation systems operated by electric motors to be a profitable investment.

There are today more than 200 different services on the farm which can be performed by the proper application of electricity. There are almost countless opportunities for applying electricity to the solution of problems in chemistry, physics, biology, economics and sociology. It may be said that only the more simple applications of electricity for farm purposes have been perfected up to the present time and there is consequently an immense field ahead in developing and perfecting additional uses.

Just as there have been great strides made in increasing illumination levels in the store and factory, so is there the opportunity for the farmer to make use of greater intensities of light in his farm buildings and yards. The advance made in lighting the streets of our cities has brought about a desire on the part of the farmer for adequate lighting of all highways in the vicinity of his property. Today there is mile after mile of highway lighting on roads passing through agricultural sections.

temperatures, the percentage is much higher.

Perhaps the most useful piece of electric equipment which the farmer may own is a portable utility motor. It is commonly said that ten men are required to do the work of a one-horsepower motor, so the farmer who uses a five-horsepower motor, for example, is utilizing low-cost labor and is freeing what labor he does have for other uses. These motors are used for a multitude of purposes, including grinding, mixing and elevating grain, filling silos, grinding hay, operating hay balers, shredding and shelling corn, driving wood saws and small threshing machines.

In addition to portable motors the farmer makes use of countless other stationary applications of electric motors. The progressive dairy farmer uses electric milking machines. His hay is probably stored with an electric hoist. Electric incubators and brooders have replaced the mother hen and give the farmer stronger, healthier chicks with less labor, worry and cost. Electric lights installed in his hen houses have probably increased his egg production 25 per cent in the fall and winter when egg prices are high.

The use of refrigeration supplied by electrically operated equipment is rapidly increasing. It has been estimated that refrigeration should easily make up nearly one-quarter of the mechanical power on the average farm. On dairy farms, where large quantities of dairy products must be preserved at low temperatures, the percentage is much higher.

Medicine Leans Heavily on Aid From Electricity

Electricity Has Profited From Work of Brilliant Doctors

(Continued from Page 36)

treatment has become part of routine medical practice.

Very interesting experimental work is being done recently with "electrical or high frequency fever" in the treatment of certain organic nervous diseases, stubborn forms of arthritis or pelvic infections. By the use of a large diathermy apparatus or special short-wave radio tube apparatus, the patient's temperature is brought up to 104 degrees to 106 and maintained so for some hours. Some very promising results have occurred.

The surgical uses of this powerful electric heat are even more spectacular. For this purpose the current is concentrated in one "active" electrode, usually a fine needle, or when the so-called cutting current is used, in a knife-like blade. In skilled hands superficial moles, warts, or other small new growths can be dried off instantly and removed without pain, larger growths on the surface, or in the mouth, or in the female parts are "coagulated" with the patient in narcosis, but with much less danger of bleeding and exhaustion from long operations. The cutting current sears through tissue like a hot knife through butter, and delicate operations on the brain are being performed which were unthinkable before the advent of electro-surgery.

The removal of tonsils by electric methods has attracted attention recently, but it is by no means as easy and simple procedure as some enthusiasts would believe. It requires about half a dozen treatments at weekly intervals to destroy the tonsils completely and even more skillful operative care than cutting them out in one operation.

Electricity, for exercising weak or flabby muscles or for keeping some life in fully paralyzed muscles, is employed in the form of low frequency currents, such as the after treatment of injuries when voluntary exercise is not possible or in the long dreary months of recovery after a real nerve injury or infantile paralysis such treatment is one of the chief standbys alongside the necessary surgical or orthopedic care.

It is an almost uncanny sight to see the working of a surgical electrical current in these paralyzed limbs. Two wet pads are applied to opposite ends of the limb; the current is slowly turned on and while the patient hardly feels anything, one muscle after another starts working.

Skin Diseases Treated

The ordinary galvanic current can be used with success for re-

moval of superfluous hair, for softening of adherent scars, for speeding up the repair of slow-healing ulcers or infected mucous membranes in the ear or in the female cervix by copper or zinc "ionization." The effective employment of electricity in treatment requires an intimate knowledge of anatomy, physiology, pathology and electricity—such as only qualified physicians possess.

The largest field for the indirect use of electricity for treatment purposes exists in the many types of heat and ultra-violet lamps now being extensively used. In ordinary bruises, superficial infections of the skin, simple colds, mild forms of muscular rheumatism and arthritis, these heat lamps are a source of pleasant and effective relief, while ultra-violet radiation, as it is well known by this time, has powerful effects in the treatment of rickets and malnutrition of children, and in the various types of skin, bone, glandular and intestinal tuberculosis and in anemic conditions of adults.

High voltage electricity generating X-rays of Roentgen rays in specially constructed tubes and apparatus enables the successful treatment of many forms of skin disease, certain types of tumors, and some chronic internal conditions.

Electro-magnets are being successfully employed in injuries of the eye to remove steel particles which are imbedded in the depth of the eye beyond the reach of operative measures. The sight of many injured in the war or being damaged now in industrial accidents has been saved by such an ingenious and simple device.

Motor-driven bone saws made remarkable advances in bone surgery possible. They enable the slicing out of pieces of healthy bone and their perfect grafting into the spine or other bony parts, where injuries or disease have destroyed bone and nature has been unable to grow new bone. This new operative technique on bones has saved many people from becoming cripples for life.

Many of the chief advances in modern medicine are based exclusively on methods of being able to recognize disease conditions in the interior of body cavities through direct electrical illumination or through photographs taken by X-rays. Minute incandescent lamps of sufficient candle power are mounted on suitable holders and can be introduced into the various body cavities. In the eye, ear, nose and larynx, urethra or rectum these diagnostic lights enable direct inspection of the parts, while in the esophagus, stomach, large bowel, urinary bladder in ingeniously constructed set of reflecting lenses and mirrors is added which allows inspection of the mirrored and often magnified view. Ingenious devices allow the simultaneous operating of electro-surgical outfits so as to destroy the diseased parts observed. New growths in the bladder and other organs can thus be successfully removed without the need of real "cutting."

Influenza is a word derived from the Italian language, which means "to influence."

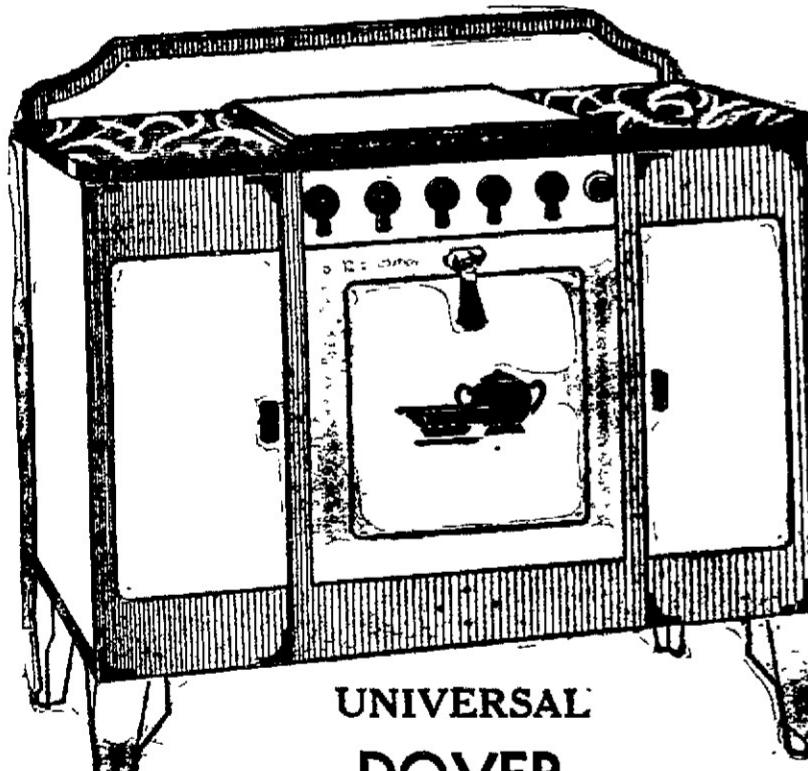
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EVERY INCOME



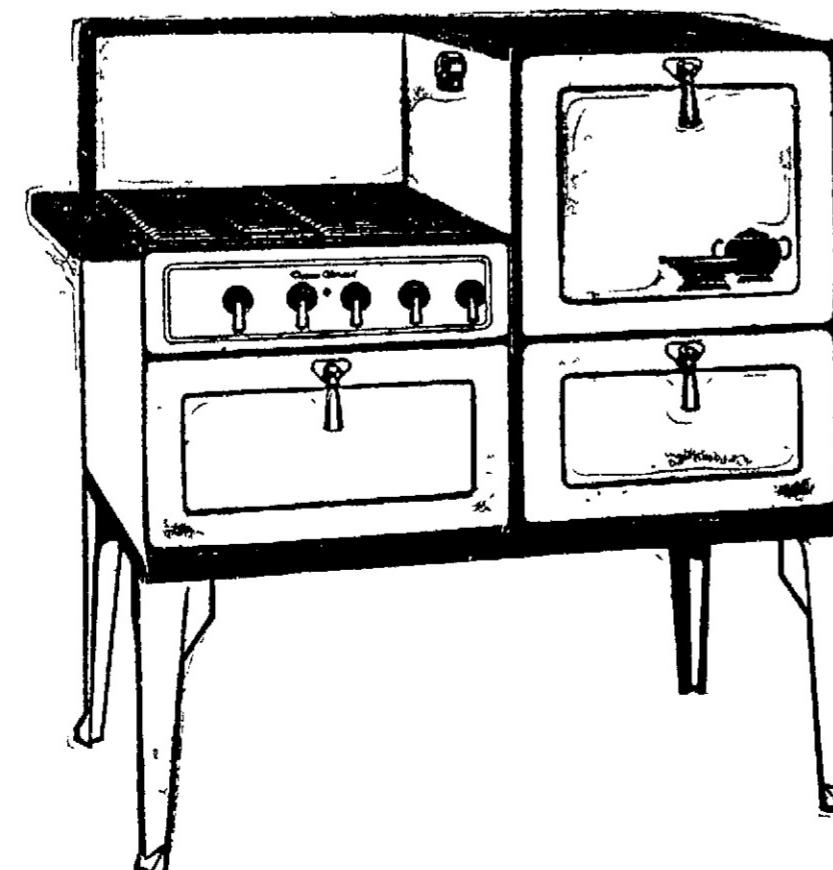
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APPLETON

Whole World Feels Touch of Edison's Hand

Appleton Has Had Prominent Part in Exploiting His Invention

(Continued from Page 35)

large quantities of Seiditz powders with the belief that the generated gases would make him fly.

The only scholastic instruction Edison ever received was for three months at Port Huron school; after his family moved there in 1854, when he was seven years old. However, his mother's training and teaching had given him an extraordinary background of reading by the time he reached the age of 12 having read such books as the Decline and Fall of the Roman Empire, Hume's History of England, the Dictionary of Science and other such books.

Interest in Chemistry

At this time Edison's interests were centered in chemistry and with the establishing of his first laboratory in the basement of the Port Huron home began the development of the creative genius of the boy and man. When the Grand Trunk railroad extended its lines from Port Huron to Detroit about 1861, Edison persuaded his mother to allow him to be a newsboy on the local train. After working for several months the lad started two stores in Port Huron, hiring two other boys to take care of them. One was for periodicals and the other for vegetables. However this business proposition did not last long, since he had become too interested in chemistry to stay away from the subject for long.

So it was in the little compartment of the baggage car where he kept his newspapers Edison set up his equipment. With the outbreak of the Civil War, when newspapers were in increasing demand, young Edison decided to become a publisher. His print shop was set up on the train and was composed during the run, thus bringing into existence the Weekly Herald, the only newspaper in the world to be printed on a train while in motion. As the "laboratory on wheels" became crowded for room, disaster was bound to occur, which it did in the form of a phosphorus stick which jarred to the floor with the sudden lurch of the train, setting the car on fire. Edison, printing equipment and laboratory were promptly ejected.

While still the "newsy" on the train, Edison became interested in telegraphy and it was not long before he and a friend had a line built between their homes consisting of stove pipe wire with bolts, set on nails driven into trees for insulators. It was at this time that the idea of obtaining electricity cheaply made Edison experiment with bats as frictional machines until the animals protested too vigorously.

The morning in August, 1862, that Edison dropped his papers and dashed to save the life of a child from an approaching train at Mount Clemens, led him to learn the art of train telegraphy. The child was the baby son of the station master who repaid the bravery of young Edison with the offer to make an operator of him. Already the newsboy had learned the Morse code and was able to appear at the station with his own neat little set of instruments which he had fashioned with his own hands in a Detroit gun shop.

Too Much Genius
It was later as a night operator at Stratford Junction, Canada, that Edison showed signs of his real inventive genius. Being on duty from 7 p.m. until 7 a.m. he was supposed to send in the signal "6" every hour after 9 o'clock. Unable to keep consistently awake and feeling the need of sleep Edison rigged up a small wheel with notches on the rim, and attaching this to a clock, each hour the wheel revolved and sent in accurately the six dots required for his hourly signal. Needless to say, although a success, his invention cost him his job and he began his wandering career as a "tramp operator" over the country for five years.

In 1868 Edison found his way to Boston where he became employed with the Western Union Telegraph Co. It was here that Edison took out his patent papers for his first invention, the only one of the 1,300 or so which was impractical, and it was here that he started his life work by inventing the first stock ticker and building the first duplex telegraph to send two messages over a single wire at the same time.

Edison's first invention, an electrical vote recorder, was made for the purpose of taking a vote in the House of Representatives in less than two minutes. In spite of its time-saving success, Congress was not interested whereupon Edison made a vow that he would never invent another thing that would not be used for the purpose it was intended.

His first shop in Newark was bought with the money he received from many subsequent inventions after Edison improved the stockticker used in New York markets. It is from this point on in his life that the young inventor began to delve into various businesses. In a short time in Newark he was maintaining a crew of 50 men to make "stock-tickers." During this period in 1870 and 1871 he started three shops and work of various kind poured in for Edison to improve and manufacture. George Little, an Englishman brought to him the problem of making automatic telegraph practical for long circuits, which he worked on until it was a success. At about the same time a man from Milwaukee brought his wooden model of a machine designed to be the typewriter to New York. It was Edison's hands that perfected the machine for com-

Veteran



American concern is made in kilns of the Edison type.

On the suggestion of Henry Ford the inventor, then aged, turned to the possibility of producing rubber from plants grown in the United States and his work was progressing rapidly until his health failed.

His work encompassed a half century and through its thoroughness brought business, scientific and scholastic advancement. The words of his biographer, Arthur J. Palmer, brought to the nation at the time of his death at his home in West Orange, New Jersey, last year, are well spoken:

"He has led no armies into battle—he has conquered no countries—he has enslaved no peoples—yet he yields a power the magnitude of which no warrior ever dreamed. He commands a devotion more sweeping in scope, more worldwide than any other living man—a devotion rooted deep in human gratitude, and unforged by bias of race, color, religion or politics."

A. C. Langstadt, who came to Appleton in 1887, has been connected with the electrical industry since that time, and for many years he was intimately connected with the plants which furnished early-day Appleton with electric light and power.

mercial sale. In 1875, Alexander Graham Bell made his first pair of magneto telephones and obtained a patent on them.

Although Mr. Bell is known as the father of the American telephone system and inventor of the device, it was Edison who, under the instruction of the Western Telegraph system, produced the carbon transmitter that is used universally today.

Started on Lamp

The inventor began his experimenting with the incandescent lamp in 1877. Already arc lights were well established and gas lights were used for street lighting and lighting in homes. His work to produce the incandescent lamp for indoor lighting, a thing that was scoffed by scientists, took many hours of toil and experimentation. Edison was not the first person to make an incandescent light, as the principle had been established many years before, but it was his experimentation that brought about the commercial results and widespread use of electric lighting.

It is interesting to know that after experimenting with hundreds of materials to obtain a carbon filament in his light, Edison found an ordinary piece of sewing thread could be used. When the testing time came in Edison's shop, it was found that his light lasted nearly two days and the Edison incandescent lamp became a fact Oct. 21, 1879. His experiments did not end here, however, since he desired to find a better carbon filament, and in order to make a practical lamp he had to devise ways to produce a practical system of lighting. This involved a whole new system of artificial lighting which included a method of distributing current to homes, stores and factories. Then a meter to register the amount each customer used had to be invented, a method to maintain the even "current" had to be found, followed by work on efficient dynamos and means of regulating them. After these were invented his work turned to innumerable switches, lamp holders, fixtures and methods of wiring buildings. Without these subsequent details his successful incandescent lamp would have been but an interesting experiment.

It was not until 1882 that Edison established the first central station for the generation and distribution of electricity for incandescent lighting in his Pearl-station, two years after the Edison Electric Illuminating Co. of New York had been organized. The work was closely connected with the development of the use of electricity for street railways and in 1880 Edison constructed a stretch of track close to his laboratory and built an electric locomotive to operate over it.

The idea, again like lighting, was not originally his, but he perfected all prior experiments by developing the proper dynamo power for current generation. In the spring of 1883 the Electric Railway of America was organized to develop the patents of Edison and Stephen D. Field.

His development of the phonograph occurred in 1877 while he was laying the foundation for universal light and power. The story is well remembered how Edison shouted "Mary had a little lamb" into his first machine, which led the way to larger and better machines, upon which he worked constantly night and day, without sleep or food. The principle of the phonograph has changed slightly in the years since 1877 and 1878, although the mechanics of the machines have been refined.

Talking Pictures

Like the phonograph the great inventor worked on the art of motion pictures, already begun by predecessors but not made commercially practical, as in the case of the telephone and electric light. In 1877 he became interested in making an instrument for the eye what the phonograph did for the ear and by combining the two, both motion and sound could be recorded simultaneously. It is not until today with the talking pictures that Edison's idea in the seventies finally came true. While experimenting with this idea, George Eastman had developed a camera film in which Edison saw possibilities and in 1889 the first modern motion picture camera was perfected.

Watching the development of the storage battery for 15 years, Edison began to work on the problems preventing its commercial use in 1900, with the estimate that he made close to 50,000 experiments in the development of his article.

Greatly interested in cement, Edison went into this business and introduced so many new methods that in five years he brought his plant from the position of an outsider to the rank of fifth largest producer in the country. His work was concentrated on the kilns used for burning of cement which he brought after many experiments to produce 1,100 barrels per day. Today more than one half of the cement manufactured by a large

Saw History of Electricity Made

A. C. Langstadt Saw Development From its Infant Days

The entire gamut of progress in the electrical industry of Wisconsin has passed under the scrutiny of 64 year old A. C. Langstadt, whose present association in Appleton began back in '88, when as a lad of 18, he became one of the operators of the original hydroelectric plant, the first plant in the world to use water for generating electric light.

"I have lived to see the incandescent lamp developed from the efficiency in the eighties of 6.5 watts per candle," Mr. Langstadt declared, "to one watt per candle, as well as having seen the innumerable electrical comforts and improvements all brought about by the stick-to-it spirit shown by pioneers in the electric lighting business."

He remembers how the operator in the old, original plant had little equipment back in the 80's. The voltage gauged by the operator's eyes, and all the lights in the system were turned on since the Edison electrostatic meter had not been developed as yet. "There was no day service, the lights were furnished from dusk to dawn."

It is from this point that Mr.

Langstadt began to see the developments of electric lighting, following its development throughout the past 40 years to its present day

returning to the Appleton plant for

work.

"There were no instruments of

any kind in those days," Mr. Lang-

stadt pointed out, "Voltmeters, am-

meter, lightning protection and even fuse protection were unheard of then. The dynamo was started, the voltage gauged by the operator's eyes, and all the lights in the system were turned on since the Edison electrostatic meter had not been developed as yet. There was no day service, the lights were furnished from dusk to dawn."

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velopments of electric lighting, fol-

lowing its development throughout

the past 40 years to its present day

complexity."

Thousands of Dollars Lost in Sleet Storm

(Continued from Page 42)

This Appleton man has watched the pioneer plant grow in size, and has seen the progress of the electrical industry spread slowly throughout the state from its crude beginning to the tremendous service in almost every town and village in the state today.

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train service was restored, and D. J. Ryan, president of the village of Combined Locks, had to walk seven miles in the snow in order to get to Appleton for a county board meeting. He made the trip in an hour and 20 minutes.

The fire alarm system was completely out of commission, schools were closed, and fallen trees, heavy with ice, blocked walks and roadways throughout the city and country. It was reported at the time that not a pole, electric or telephone, remained standing between Oshkosh and Fond du Lac, and between Appleton and Neenah the number down was 148. A network of fallen wires covered the city.

Lost \$200,000

The loss of the Wisconsin Telephone company, hardest hit of any of the service companies, was estimated at \$200,000. Hundreds of extra men were employed to help replace poles and wires, and white-collar men throughout the plant donned overalls and went to work with the crews. The supply of wire and other materials ran out, and no more could be obtained until train service was again started. Using broken poles, fence posts or anything at hand, the workmen suc-

ceeded in running one temporary toll line to each point out of Appleton.

Damage to trees was perhaps the worst in the history of the city. City park and Lawrence campus looked like lumbering camps Thursday morning, and during the night limbs and trees made brittle by the thick coating of ice, toppled to the ground. Pedestrians and motorists picked their way carefully after dark, conscious of the danger of falling wires or trees.

Although mail carriers went out on their routes Thursday morning, out-of-town mail service was completely tied up until trains started running. Rural carriers had a difficult time, one carrier being forced to borrow his neighbor's horses because he was unable to get his own out of the yard on account of the tangle of telephone and electric wires at the gate.

Daughters of the American Revolution, who were holding a banquet Wednesday night, had to be returned to their homes in the police patrol, when all other means of transportation failed.

The candle business in local stores was phenomenal as worried housewives laid in supplies for the remainder of the storm period.

Electrical Power and Banking Services Have Grown Side by Side

The history of the First National Bank antedates the history of the first commercial hydro-electric plant in Appleton — and the world — by twelve years. Yet, the section of our history which shows the most rapid growth closely parallels the rapid development of electric power in this area.

It was the growth of business and industry, aided by the new force of electricity which was so instrumental in building up Appleton. This building-up process was necessarily followed by an enlargement and improvement in banking methods and facilities. These improved methods and facilities have been constantly provided by First National. Always have they come from this bank, and, in addition, through our First Trust Company for more than a decade.

In the commemoration of the fiftieth anniversary of the first commercial hydro-electric plant in America we find much to interest us. The use of hydro-electricity was fostered in Appleton. This fact is a proud one in the history of our city. In the increasing use of electricity is to be found the increasing importance of this city industrially. There is not an industry in Appleton which does not depend entirely or in part upon electricity for power to operate its machinery.

Sound industrial growth through increased use of electricity has meant sound banking growth. The extent and rapidity of the development of electrical power in this territory has been, and is, a work which the Wisconsin Michigan Power Company has admirably carried on. We feel that they merit the compliments of the people of this area for their progressive development of electricity in the territories which they serve.

With this thought in mind we, as the banking institution which has worked with them, as well as their predecessors, extend to the Wisconsin Michigan Power Company our most sincere felicitations on this 50th Anniversary of the establishment of the first commercial hydroelectric plant in the world.

FIRST NATIONAL BANK and FIRST TRUST COMPANY OF APPLETON

Congratulations

.....to Wisconsin Michigan Power Company on the celebration commemorating the opening of the world's first hydro-electric central station at Appleton September 30, 1882.

The distinction which this event brings to the company, to the city of Appleton and to its historic Fox River Valley is a noteable one.

The occasion is especially significant in that it stimulates renewed interest in and a deeper appreciation for that indomitable spirit of Appleton's early pioneers whose foresight and courage in promoting a new and untried enterprise never faltered.

The fruits of their labor made history for Appleton and led the way to the establishment of an industry which has contributed immeasurably to the public welfare.

The association rejoices in the distinction accorded one of its member companies. To have co-operated with Wisconsin Michigan Power Company in promoting and arranging this memorable celebration has indeed been a real pleasure and a rare privilege.



Wisconsin Utilities Association

Milwaukee ... Wisconsin